

. This volume in the general series of the official history of the Indian armed forces relates to the operations of the Royal Indian Navy, mainly from 1939 to 1945. It has however an introductory section which gives an account of the maritime heritage of India and also relates the history of the modern Indian Navy from its early beginnings under the East India Company when it was known as the Indian Marine.

This marine service had, however a very limited role, since the defence of India's long coast-line was mainly the responsibility of the Royal Navy. Even after the First World War, in which the Indian Marine performed whatever duties were assigned to it with great distinction, it was left with a skeleton force for training and minor coastal duties. Indian public opinion was not content with this and demanded the creation of an independent navy, manned primarily by Indians, for the security of the coastline. It was, however, only after 1934, when the Royal Indian Marine was renamed to Royal Indian Navy, that the Service was expanded, and, under the stress of the fast deteriorating international situation, given the task of local coastal defence. In addition it was required to maintain a squadron of six vessels for co-operation with the Royal

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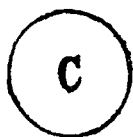
OFFICIAL HISTORY OF THE INDIAN ARMED FORCES
IN THE SECOND WORLD WAR
1939-45

THE ROYAL INDIAN NAVY

General Editor
BISHESHWAR PRASAD, D. LITT.

COMBINED INTER-SERVICES HISTORICAL SECTION
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THE ROYAL INDIAN NAVY 1939-45

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PREFACE

I have great pleasure in presenting this volume in the series "Official History of the Indian Armed Forces in World War II", prepared by the Combined Inter-Services Historical Section, India & Pakistan. While the war was still going on, a small organisation attached to the Chief of the General Staff was set up for collecting and collating records relating to the activities of the Indian Armed Forces in the global conflict. This later developed into the War Department Historical Section. After the partition of India the Section was reconstituted under a civilian historian in 1948 as a joint venture of the two countries (India & Pakistan) and commissioned to write a history of the part played in the second world war by the armed forces of prepartition India. This history was planned to be published in about twenty-four volumes—seventeen in the general series and seven in the medical series.

The present volume is one in the general series and describes the history of the Royal Indian Navy from its very beginning under the East India Company when it was known as the Indian Marine to 1945. Although the Royal Indian Navy was created by the British rulers of India, we had a rich maritime heritage before the advent of the British and a chapter on that subject has also been added in the beginning. The book then goes on to describe the different organisational changes and phases through which the R.I.N. passed and the position at the outbreak of war in 1939. The bulk of the book is naturally devoted to a detailed description of the history of the Navy, both organisational and operational, during the war period.

This volume was written by Instructor Lt. D. J. E. Collins, I. N. who was specially deputed by the Naval Headquarters to work in and consult the records of the Historical Section for this purpose. The Naval Headquarters constituted a panel of senior naval officers with the Director of Naval Planning as Chairman to examine in detail the drafts of different chapters as and when they were ready and to suggest improvements or corrections. The panel held more than forty sittings and went into each and every detail of the draft at all stages of its production before giving its final approval. Later the draft was seen by the Chief of Naval Staff also. My thanks are due to him, the members of the panel and to the author for their painstaking efforts in making the draft so thorough and authoritative. The volume was seen in the typescript by the Directorate of

Intelligence New Delhi and General Headquarters, G. S. Branch (Historical Section) Pakistan. I acknowledge my thanks to these bodies also. Finally I thank Shri P. N. Khera for help in editing the narrative and seeing it through the Press and Shri T. D. Sharma for preparing maps for it.

In conclusion I thank the Ministries of Defence of India and Pakistan for their support and encouragement.

New Delhi
April 1964

RISHESHWAR PRASAD

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ABBREVIATIONS

A. A.	... Anti-aircraft.
A. B. C. E. F.	... Arabian Bengal Ceylon Escort Force.
A. B. V.	... Armed Boarding Vessels.
A. C. E. S.	... Amenities, Comforts and Entertainments for the Services.
A. D. J. A.	... Assistant Deputy Judge Advocate.
A. I. C.	... Action Information Centre.
A. I. O. C.	... Anglo-Iranian Oil Company.
A. M. C.	... Armed Merchant Cruisers.
A. M. T. C.	... Army Medical Training Centre.
A. M. V.	... Armed Merchant Vessel.
A/S	... Anti-submarine.
A. S. D. I. C.	... Allied-Submarine Detection Investigation Committee.
A. S. T. O.	... Assistant Sea Transport Officer.
A. T. R. O.	... Assistant Technical Recruiting Officer.
B. G. O.	... Base Gunnery Officer.
B. L.	... Breech Loading.
B. L. O.	... Bombardment Liaison Officer.
B. O. R.	... British Other Rank.
B. R. N. V. R.	... Burma Royal Naval Volunteer Reserve.
B. S. S.	... Beach Signal Station.
B. Y. M. S.	... British Yard Mine Sweepers.
C. B.	... Companion of the Bath.
C. B. E.	... Commander of (the Order of) the British Empire.
C. Bs	... Confidential Books.
C. C. F. E. T.	... Captain Coastal Forces Eastern Theatre.
C-in-C	... Commander-in-Chief.
C. I. E.	... Companion of (the Order of) the Indian Empire.
C. M. G.	... Companion of (the Order of) St. Michael and St. George.
C. O.	... Commanding Officer.
C. O. F.	... Captain of the Fleet.
C. P. O. ^s	... Chief Petty Officer.
C. S.	... Continuous Service.

C. S. I.	... Companion of (the Order of) the Star of India.
D. A. R. D.	... Director of Admiralty, Research and Development.
D. C. & S. C. (I)	... Director of Civil and Services Censorship (India).
D. E. M. S.	... Defensively Equipped Merchant Shipping.
D. G. S. R.	... Director General Ship Repairs.
D. J. A.	... Deputy Judge Advocate.
D. R. (Position)	... Dead Reckoning (Position).
D. S. C.	... Distinguished Service Cross.
D. S. M.	... Distinguished Service Medal.
D. S. O.	... Distinguished Service Order.
E. As	... Electrical Apprentices.
E. C. O.	... Emergency Commissioned Officer.
Ex. O.	... Executive Officer.
F. C. B.	... Fire Control Box.
F. D. S.	... Fauji Dilkhush Sabha.
F. K. C.	... Fuze Keeping Clock.
F. M. O.	... Fleet Mail Officer.
F. O. B.	... Forward Observer Bombardment.
FOCRIN	... Flag Officer Commanding Royal Indian Navy,
F. P. S. C.	... Federal Public Services Commission.
G.	... Gunnery.
G. H. Q.	... General Headquarters.
G. M. O.	... Gun Mounting Officer.
H. A.	... High Angle.
H. D. M. L.	... Harbour Defence Motor Launch.
H. E.	... High Explosive.
H. M. A. S.	... His Majesty's Australian Ship.
H. M. G.	... His Majesty's Government.
H. M. I. S.	... His Majesty's Indian Ship.
H. M. S.	... His Majesty's Ship.
H. O.	... Hostilities Only.
H. Q.	... Headquarters.
I. A. M. C.	... Indian Army Medical Corps.
I. A. O. C.	... Indian Army Ordnance Corps.
I. D. S. M.	... Indian Distinguished Service Medal.
I. M. D.	... Indian Medical Department.
I. M. H.	... Indian Military Hospital.
I. M. M. T. S.	... Indian Mercantile Marine Training Ship.
I. M. S.	... Indian Medical Service.

I. N. C. S.	... Indian Naval Canteen Service.
I. O. R.	... Indian Other Ranks.
I. S. D. P. S.	... Inter-Services Demobilisation Planning Staff.
I. S. S. A. B.	... Indian Sailors' Soldiers' and Airmen's Board.
I. S. S. C. S.	... Inter-Services Security Co-ordination Section
I. S. S. D.	... Inter-Services Security Directorate.
I. W. T.	... Inland Water Transport.
J. A.	... Judge Advocate.
J. P.	... Justice of the Peace.
K. C. B.	... Knight Commander of (the Order of) the Bath.
K. C. I. E.	... Knight Commander of (the Order of) the Indian Empire.
L. A.	... Low Angle.
L. C. A.	... Landing Craft Assault.
L. C. B.	... Landing Craft Base.
L. C. I. (L)	... Landing Craft Infantry (Large).
L. C. M.	... Landing Craft Mechanized.
L. C. P. (L)	... Landing Craft Personnel (Large).
L. C. S.	... Landing Craft Support.
L. C. S. (M)	... Landing Craft Support (Medium).
L. C. T.	... Landing Craft Tank.
L. C. W.	... Landing Craft Wing.
L. N. D.	... Local Naval Defence.
Leg. Sto.	... Leading Stoker.
L/S	... Leading Seaman.
L. S. A.	... Leading Store Assistant.
L. S. I.	... Landing Ship Infantry.
Lt.	... Lieutenant.
Lt. Cdr.	... Lieutenant Commander.
M. B. E.	... Member of (the Order of) the British Empire.
M. C.	... Military Cross.
M. F. V.	... Motor Fishery Vessel.
m. g.	... Machine gun.
M. G. O.	... Master General of the Ordnance.
"M. K." mutton	... Sheep killed by Muslim.
M. L.	... Motor Launch.
M. O.	... Medical Officer.
M/S	... Minesweeper.
M. S. F.	... Mine Sweepers Flotilla.
M. T.	... Motor Transport; Mechanical Transport.

M. T. B.	... Motor Torpedo Boat.
M. T. E.	... Mechanical Training Establishment.
M. T. F. R.	... Miniature Tracer Firing Range.
M. V. O.	... Member of the (Royal) Victorian Order.
N. C. O.	... Non-Commissioned Officer.
N. C. S.	... Non-Continuous Service.
N. H. Q. (1)	... Naval Headquarters (India).
N. O. I. C.	... Naval Officer-in-Charge.
N. S. K. O.	... Naval Store Keeping Officer.
N. S. O.	... Naval Store Officer.
N. W. F. P.	... North-West Frontier Province.
O. B. E.	... Officer of (the Order of) the British Empire.
O. C. A. S.	... Officer-in-Charge Armament Supply.
O. E. T. D.	... Ordnance Export Transit Depot.
O. O. D.	... Order of the Day.
O. O. Q.	... Officer of the Quarter.
O. O. W.	... Officer of the Watch.
Ord. Seaman	... Ordinary Seaman.
P. O.	... Petty Officer.
P & O	... Peninsular and Oriental (Company)
P. S. T. O.	... Principal Sea Transport Officer.
P. T.	... Physical Training.
P. T. I.	... Physical Training Instructor.
Q. F.	... Quick Firing.
Q. R.	... Quarter Range.
R.	... Repeated.
R. A. F.	... Royal Air Force.
R. A. O. C.	... Royal Army Ordnance Corps.
R. D.	... Royal Dragoons.
R/F	... Range Finder.
R. I. A. F.	... Royal Indian Air Force.
R. I. A. S. C.	... Royal Indian Army Service Corps.
R. I. F. R.	... Royal Indian Fleet Reserve.
R. I. M.	... Royal Indian Marine.
R. I. N.	... Royal Indian Navy.
R. I. N. R.	... Royal Indian Naval Reserve.
R. I. N. V. R.	... Royal Indian Naval Volunteer Reserve.
R. N.	... Royal Navy.
R. N. R.	... Royal Naval Reserve.
R. N. V. R.	... Royal Naval Volunteer Reserve.
revs.	... revolutions.
(S)	... Supply.
S. A. N. F.	... South African Naval Flotilla.

S. B. A.	... Sick Berth Attendant.
S. C.	... Swept Channel.
S. I. O.	... Senior Inspecting Officer.
S/Lt.	... Sub Lieutenant.
S. M. O.	... Senior Medical Officer.
S. N. O.	... Senior Naval Officer.
S. O.	... Senior Officer.
S. O. R. S. F.	... Senior Officer Red Sea Force.
(Sp.)	... Special.
S. P.	... Selection of Personnel.
SOLWING	... Senior Officer Landing Craft Wing.
S. S.	... Short Service; Steam Ship.
S. T. O.	... Sea Transport Officer.
T. N. T.	... Trinitrotoluene.
T. O. O.	... Time of Origin.
U. S. A. A. F.	... United States Army Air Force.
V/S	... Visual Signalling.
V. S. I. S.	... Victualling Store Issue Ship.
W. A. C. (I)	... Women's Auxiliary Corps (India).
W. O.	... Warrant Officer.
WRNS	... Women's Royal Naval Service.
WRINS	... Women's Royal Indian Naval Service.
W/T	... Wireless Telegraphy.
XDO	... Extended Defence Officer.

INTRODUCTION

Geography exercises no mean influence on history as also on the attitude of a nation towards its security. Measures for the defence of a state and the nature and composition of its armed forces are largely conditioned by its geographical situation, as that determines the direction of the danger. The United Kingdom developed as a naval power pre-eminently because it is surrounded by sea on all sides and the integrity of the state and the protection of the territories depend on the control over the waters. Russia and Germany chose to strengthen their land forces and the development of the navy acquired a secondary position for long, mainly because of the situation of these countries. Similarly India had been, through the ages, sensitive to landward threats, and that too only from one direction because of the geographical factors. The mountain belt of high altitude in the north and the densely forested highlands in the north-east had lulled the sense of danger emerging in those directions. The north-western frontier alone was exposed to threat of encroachment and provision had been made over the ages to contain it. The vast western and eastern sides of the peninsula are washed by the seas and to the south lies the deep unending stretch of water known as the Indian Ocean. These waters have been used for centuries for peaceful purposes, for trade and cultural contact. But in the long span of history of this country there is no evidence of any large-scale hostile attacks by way of the sea. Perhaps no Asian state had the resources for embarking on such an adventure. In more recent times, since the close of the 15th century, some European powers have used the sea routes for aggressive purposes; but in this period also, for various reasons, greater prominence has been given to land defence rather than providing for the safety of coastline and the waters surrounding it.

Nevertheless, India has a tradition of maritime pursuits and art of shipbuilding. In ancient times the seas did not operate as instruments of isolation but as the means of export of culture and commodities and contact with the outside world. There is mention of navies being maintained by the Indian maritime states, or even the internal empires as late as the period of the Mughal Emperors and the Marathas. Merchant fleets were there plying the eastern waters and trading with the kingdoms and islands of South-East Asia and beyond. But the war potential of the Indian fleets, both commercial and otherwise, does not appear to have been impressive and they could not

equal those of the Arabs or the Europeans who intruded into the Indian waters and dominated the seas, without being expelled from there by the Indian navies. By the eighteenth century, Indian weakness on the seas was quite glaring. Then came the British East India Company which acquired political sway over the coastal regions and drove out all naval competition to its supremacy and monopoly of Indian waters. The Company's fleet was supplemented by the Royal Navy and these two together expelled the French, the Dutch or the Portuguese from the Indian seas and any share in the commerce or political management of the country. But the East India Company was more interested in commercial enterprises and gradually the protection of India seaward was left to the unchallenged supremacy of the Royal Navy. The vessels of the East India Company, however, were formed into the Indian Marine, which was later called the Royal Indian Marine in 1892. During the last century it had changed from sail to steam engine and its organisation expanded. In the Great War of 1914-18, various duties were assigned to this Service which it rendered with great distinction particularly in the West Asian waters. But at the expiry of the war, the Royal Indian Marine also suffered from the wave of retrenchment and economy and its combatant status was greatly affected. That was natural in the context of international situation and the complete reliance on the Royal Navy for the protection of India on the side of its oceanic frontiers. The Government of India was burdened with the payment of a sum of £100,000 annually to the British Government for this service and the Indian Marine was left a skeleton force for minor coastal duties and to provide for limited training. The absolute reliance on the British navy had the effect of depriving the Indians from developing naval traditions and seafaring experience. Even the few who had served in the first world war were retrenched from service and no strong corps of reservists was there to be called up in an emergency.

The Indian public opinion was not content with this state of affairs and demanded the construction of an independent force, manned primarily by Indians, both in the rank of seamen and officers, to safe-guard the security of the coastline. Of course, no one could then contemplate the existence of a navy powerful enough to obviate the necessity of depending on the Royal Navy for ultimate security of the Indian Seas. The Government of India had appointed the Rawlinson Committee to suggest reorganisation of the Marine service. The report of this Committee recommended the formation of a small combatant force but its suggestions were not implemented till nearly a decade afterwards when the naval Bill was adopted

by the Indian legislature and the Royal Indian Navy was inaugurated in 1934 with its separate headquarters in Bombay. The service was further expanded in the next two years before the beginning of the World War, largely under the stress of the fast degenerating international situation which disclosed danger to the British Empire in the east as well. It was clear that in an emergency absolute reliance was not possible on the Royal Navy which could have various calls on its resources in the Western waters, nearer the British Isles. Japan was developing hostile proclivities towards the British and in that situation the inviolability of the Indian seas could not be guaranteed. Hence a larger measure of provision for coastal defence as well as for patrolling the seas and combating minor danger was necessary. The Royal Indian Navy submitted a plan for expansion which might be completed in nine years. The Chatfield Committee adopted it with the modification that it should be implemented in five years. The British Government also released the Government of India from the payment of the subsidy which was to be devoted to finance the expansion, on the condition that the Royal Indian Navy would maintain a sea-going squadron of six escort vessels to co-operate with the Royal Navy and would also undertake the responsibility of local naval defence. With these new developments, the stage was set for the building up of a real navy looking after the defence of the country, though to a limited extent, mainly to ward off local threats and as a subsidiary wing to the Royal Navy.

The war came in 1939 and compelled extensive expansion, much of it without any previous planning or organisation, to meet the immediate requirements. The Chatfield recommendation to arm the merchant ships was adopted and new types of vessels were added to the fleet for affording protection to the Indian ports and the sea alleys leading to them. The Eastern Fleet of the Royal Navy was there in the background, but the local naval defence was the responsibility of the Royal Indian Navy which was strengthened for the purpose. This Service did undertake combatant duties as well and rendered commendable service in the Middle East and the Bay of Bengal. Its vessels operated in the European waters also, both in the Mediterranean and the Atlantic. Perhaps the most important and earliest combatant assignment was in the Red Sea and the Indian ships took an active share in the capture of Massawa from the Italians and fighting the Italian navy on the coast of Somaliland. So also did they operate with success in the Persian Gulf, where their duties related largely to patrolling the coast and escorting the supply ships. In the period after the entry of Japan into the war, Burmese waters became the primary field of the activity of the Royal Indian Navy. It

took part in patrolling, and co-operated effectively in combined operations. Movements through tricky chaungs and along the highly indented coastline of Arakan were full of hazard, but the Indian navy did not flinch from duty and gave a magnificent display of valour and skill. The Indian officers, though few in numbers, played up to the occasion.

The Royal Indian Navy was young in years and limited in its strength and equipment. It had suffered initially from the apathy of the rulers and was entrusted with a very secondary role in the defence of the country. Indianisation of officer ranks was a slow process. None the less, the war placed heavy responsibility on its head and in the process of fulfilling the obligation, the Service developed and Indianisation proceeded, so that by the end of the war the Navy had attained maturity and built up a structure which made it worthy of playing a vigorous role in the future.

In this volume the story of this transformation of the Royal Indian Navy has been narrated and its operational role in the war described. The organisational changes were a consequence of the duties imposed on it, hence they have been given some prominence. Modern warfare involves intimate co-operation and co-ordination of the three Services—army, air force and navy and the effectiveness of defence depends on the balanced growth of all these and their harmonious working. During the last war, the Royal Indian Navy performed this function eminently and proved its worthiness in maintaining the security of the country and defeating hostile encroachments. The infant Service displayed signs of growth and laid foundations of a tradition and *esprit de corps* which are the most powerful elements of the strength of a defence service.

BISHESHWAR PRASAD

CHAPTER I

India's Maritime Heritage

Unlike the Atlantic and Pacific Oceans, the Indian Ocean is indented by the land mass of India, which lies in its centre. India has a vast coast-line running to nearly 3,500 miles. On its west coast is the Arabian Sea which stretches up to the Red Sea and is joined to the Persian Gulf. On the eastern side, the Bay of Bengal is connected with the South China Sea through the Straits of Malacca. The Indian Ocean is a vast frontage facing India and is its natural highway. The centre of gravity of the Indian Ocean thus rests on the vast continental space of India. Geographically India occupies a strategic position in south-east Asia. However, the coast-line does not provide many harbours, and has only few good harbours. The chief of them before 1939 were Bombay, Calcutta, Cochin, Madras and Vizagapatam.

Maritime Advance from the 3rd Century B. C. to the 12th Century A.D.

This geographical position of India necessarily involved the maintenance of a navy, the history of which goes back to ancient times. From the time of the Mauryas we have definite information on shipbuilding and construction of men-of-war. Megasthenes informs us that the shipbuilders of India were salaried public servants and that the ships were built in the royal shipyards. The development of national shipping led to the creation and organisation of a Board of Admiralty (Nav Parishad) as one of the six Boards which made up the War Office of Emperor Chandragupta. In the time of his grandson Asoka, India was brought into systematic connection with the Greek kingdoms of Syria, Egypt, Cyrene, Macedonia and Epirus; and she became, through the efforts of the Emperor, the missionaries and the merchants, not only a spiritual centre but also a throbbing commercial spot of the Old World. Historian Smith observes: "When we remember Asoka's relations with Ceylon and even more distant powers, we may credit him with a sea-going fleet as well as an army."

In South India foreign trade and intercourse had developed under the Andhras with Rome between 200 B.C. to A.D. 250. R. Sewell, describes it thus: "The Andhra period seems to have been one of considerable prosperity. There was trade both overland and by sea; with Western Asia, Greece, Rome and Egypt as well as with

China and the East. Embassies are said to have been sent from South India to Rome. Indian elephants were used for Syrian warfare. Pliny mentions the vast quantities of species that found its way every year from Rome to India and in this he is confirmed by the author of the 'Periplus'. Roman coins have been found in profusion in the Peninsula and especially in the south. In A.D. 68 a number of Jews, fleeing from Roman persecution, seem to have taken refuge among the friendly coast-people of South India, and to have settled in Malabar." South India also witnessed a spurt in naval activities again under the strong rule of the Cholas (985-1054 A.D.). These kings on the Coromandal Coast maintained a permanent naval fleet. The great Chola emperors Rajaraja I and his son Rajendra I pressed into service strong armadas for the extension of their power. The Chola power reached its apogee during the reign of Rajendra I. He invaded Ceylon and completed the conquest of the island begun by his father. He sent a large naval expedition against the kingdom of Sri Vijaya, a powerful maritime state which then held sway over the Malayan peninsula, Java, Sumatra and the neighbouring islands and controlled the sea routes from India to China. "Till the end of the tenth century, that is, for a period of nearly 500 years, the Sri Vijaya kings were the Lords of the Ocean. But in 1007 the Chola Emperor Rajendra fitted out a powerful navy and challenged the might of Sri Vijaya. He not only defeated the opposing navy, but captured Kedah and established the Chola power on the Malay Peninsula"¹.

From 1498 to 1612

In later centuries, however, the naval superiority of Indian States seems to have declined, so that when the Portuguese appeared in the Indian Ocean, their progress could not be checked. Though from 1498 we have an unbroken record of naval and maritime history, the year marked the beginning of India's eventual eclipse from the naval and maritime field. When Vasco da Gama succeeded in discovering the oceanic route to India, he took a series of measures to oust the Indian sea power and commerce. The Portuguese claimed the monopoly of maritime trade for the Portuguese Crown and attacked vessels plying without Portuguese permits. These piratical activities and the attendant atrocities on the coastal towns and commercial communities by the Portuguese were vigorously opposed by the rulers of the Malabar Coast. Three naval battles were fought against the Portuguese—the first off Cochin in 1503, the

1. Panikkar, K. M. *India and the Indian Ocean*, p. 33.

second off Chaul in 1508 and the third off Diu in 1509. None of these was decisive and the supremacy of the sea slowly passed on to the Portuguese.

Though the Portuguese had thus established a kind of supremacy in the Indian Ocean, it was not undisputed. For well over 90 years the Zamorin's fleet under the family of Calicut Admirals known to history as Ali Marrakkars, with their headquarters and naval station at Ponnani, a naturally strong harbour to the south of Calicut, held its own in the home waters of Calicut. The most famous name in the house of Marrakkars is that of Kunjali Marrakkar II. He sank innumerable Portuguese ships (no less than 50 ships in one year) and his very name was a terror to them. But Mohommed Kunjali Marrakkar (Kunjali III) the hero of a thousand fights and the last of the Indian 'sea-dogs' rebelled against the Zamorin of Calicut. The Portuguese benefited from this quarrel and succeeded in exterminating the famous Marrakkars. The exploits of these gallant Indian sea-dogs not only restricted the Portuguese power but also put an end to their inroads on the sub-continent.

Akbar, the Great Mughal, organised the Navy on sound principles. His Admiralty had four functions—supply of ships and boats, drafting of efficient seamen, watching of rivers and lastly the imposition and collection of port duties. The Mughal fleet was stationed at Dacca and its duty was to protect the Bengal coast from the Magh and Feringi pirates.²

The Mughal Navy during the time of Aurangzeb was in a good standard of efficiency. According to Dr. Fryer, Aurangzeb had at Surat four great ships always in pay to carry pilgrims to Mecca free of cost. Some of the larger Indian ships at Surat like *Futteh Mahmood* and Aurangzeb's own ship *Gunj Suwaie* fell a prey to a notorious English pirate called Every.

Running apace with the naval activity of Aurangzeb was the coming into its own of the Maratha Navy under Shivaji who believed in the doctrine of '*Jalamaiva Tasya, Balamaiva Tasya*' (whoever is powerful on sea is all powerful) and organised his Navy on sound lines. His genius was reflected in the creation of a navy, and the formation of a formidable fleet of 700 ships of various sizes. He was ably assisted in this task by Tukoji Angre and Daulat Khan. The whole

2. The Fenny river was the boundary between the Burmese (Magh) kingdom of Arakan and the Mughal Empire, but during the reigns of Jahangir and Shah Jahan, the Magh pirates acquired complete domination over the rivers and creeks of East Bengal. Their naval power was strengthened by the settlement of Portuguese and half-caste (Feringi) adventurers in Chittagong, who acted as the agents of the local raja in these raids.

of Konkan was brought under his sway with the help of his navy. The entire coast-line from Mandvi to Malabar was fortified and naval docks were built at several places. After the death of Shivaji and Tukoji, the latter's son Kanhoji Angre assumed charge of the Maratha navy. He reorganised and modernised it by the construction of several 300-ton ships with 30 to 40 guns. He strengthened his navy to such an extent that it could meet the attacks of the Portuguese and the English. His sudden death in 1729 however led to the decline of the Maratha navy. In the subsequent period, no indigenous power had any navy worth the name and whatever was left was extinguished by the emergence of the English East India Company as the supreme political authority in the country. Henceforth the history of Indian navy is the story of the maritime enterprises of the East India Company and of the organisation of the Indian Marine as the local instrument of sea power.

INDIAN NAVY FROM 1612—1939

Birth of the Modern Indian Navy

The English East India Company was founded in 1600 and the first squadron of ships, belonging to her arrived in India on 5 September 1612. Two months later the English forced the Portuguese to a battle off Surat and thereafter they set up their first factory at Surat. Captain Best of the John Company's first squadron cruised the west coast for three months and sailed off to Sumatra. With his departure, the Indian Marine was formally established. The Company obtained permission to open new factories, and a fleet of small craft known as 'grabs' and 'galivats' was formed to protect their commerce from the Portuguese and the pirates of the West Coast.

The grabs were vessels of about 300 tons, of shallow draught mounting up six 9-to-12-pounder guns. The galivats were craft of about 70 tons and usually carried about half a dozen 2-to-4 pounders. These craft were officered by volunteers from the Company's ships and their crews consisted mainly of Indian fishermen from the Konkan coast. From the early years of the East India Company, this force formed the nucleus of the Indian Marine, the larger ships coming out and returning to England as the Company deemed fit.

The East India Company had to fight battles with the Portuguese before getting a foothold on the country.³ In the second and third

3. The conflict was threefold : between the English and the Portuguese, between the Portuguese and the Dutch, and between the Dutch and the English.

battles of Swally off Surat in 1614 and 1630 respectively, the Portuguese were overpowered by the English which enabled them to open more trading settlements in the country. After the acquisition of Bombay in 1668 by the Company and the transfer of their headquarters from Surat to Bombay in 1687, the Company's trade and administration tended to increase. About this time Sir John Child, Governor of Bombay, took a hasty step in attacking the Mughal fleet (the Sidis) which resulted in the loss of the island of Bombay and the Bombay Castle (the present Indian Naval Barracks) which was later redeemed after the payment of a huge sum.

When the growing Maratha Navy under Admiral Kanhoji Angre spread its tentacles throughout the West Coast, the East India Company built corvettes to convoy their ships. In 1717 a strong English fleet under the command of Commodore Burlew attacked the Maratha garrison at Gheria but had to withdraw with severe losses. The task of suppressing the Marathas became easier only after the death of Kanhoji in 1729.

The English and the French

In 1740, a new power, capable of challenging British sea power entered the Indian Ocean. From their base in Mauritius, the French sent a strong fleet to intercept the British merchantmen. La Bourdonnais commanding the French fleet scored a few good victories over the British but these were short-lived. The French were finally defeated and the English had undisputed control of the sea.

Shipbuilding

Great progress was recorded in shipbuilding during the Company's time. Four pinnaces⁵ and other larger vessels including the *Queen* were built in 1635. Bombay was a safer harbour and the present naval dockyard was selected as shipbuilding site by Nusserwanji Wadia, ancestor of a long line of famous Indian shipbuilders. In a little over 100 years, no less than 115 war vessels and 144 merchantships were built in this dockyard including 84 gun ships of a total tonnage of 2,000 for the Royal Navy.

Nineteenth century saw the defeat of the Joasmis,⁴ the capture of Aden, Rangoon and Bushire and the Company's ships changing

4. Joasmis were a powerful Arab tribe which held sway throughout the Persian Gulf with their headquarters at Ras-el-Khaima. They were originally merchants and pearl fishers but later took to piracy. In 1819, decisive action was taken against them and an expeditionary force was fitted out. As a result, they were utterly defeated and their stronghold of Ras-el-Khaima was reduced.

over to steam from sail. The first ship to be fitted with a steam engine was the *Hugh Lindsay* of 411 tons. She sailed from Bombay and reached Suez in 21 days. A Marine Survey Department was also started during this century. It was manned completely by Navy officers. In 1863 the Navy was reorganised on a non-combatant basis and renamed 'Bombay Marine'. In 1892, the Service was renamed the 'Royal Indian Marine'.

First World War

During the first World War (1914-18) the Royal Indian Marine ships carried troops and other war materials to Egypt, Iraq and East Africa. The Royal Indian Marine ship the *Hardinge* on patrol in the Suez Canal fought a gallant action when the Turks attempted to block the canal. She was badly damaged and one of her funnels was shot away but she prevented the blocking of the Channel. The R.I.M. also played a leading role in landing troops in Mesopotamia and their small river craft did very useful work on the Euphrates and Tigris rivers. The *Northbrook*, *Minto* and *Dufferin* were in the Red Sea on patrolling duty. The *Minto* called at Jaddah and brought the Haj pilgrims safely back to India.

Retrenchment

At the end of the First World War, the Royal Indian Marine reverted to its peace-time non-combatant role. After the war, when Admiral of the Fleet Lord Jellicoe was on a visit to India, the Government asked him to draw up a scheme for the reorganisation of the Marine. He made proposals which were considered too costly to be implemented. The Esher Committee which reported on the Indian Army strongly recommended the reorganisation of the Royal Indian Marine as a combatant service. In 1920, the Government of India obtained Rear Admiral Mawby from the Admiralty, to draw up, as Director of the Royal Indian Marine, suitable plans for reorganisation, but his scope was limited and his scheme was finally rejected. Following the report of the Inchcape Committee, the drive towards retrenchment converted the service into a Yacht Squadron for high officials, with hydrographic, buoyage and lighting duties paid for by the local governments. The Indian Government did not like to spend money even upon these duties if the work could be done more cheaply by private contract. The Inchcape Committee recommended the scrapping of troopships, the carrying of troops by contract, and the virtual reduction of the Marine to a Survey Department and a Dockyard. In the final result, the Marine was left with the *Clive* for lighting and buoying duties on the Burma coast,

where she also carried out political duties; the *Lawrence* carrying out similar functions in the Persian Gulf; the *Minto* acting as the Station Ship for the Andaman and Nicobar Islands; the *Cornwallis* lying in the dockyard unconverted, and two small ships the *Pathan* and the *Baluchi* for local training at Bombay. The *Elphinstone*, an old sloop of the Royal Navy was used as a relief ship until her loss in 1926. In this way, lack of appreciation by the Government of the necessity of building up a body of experienced officers and men by constant peacetime training and operations, was responsible for practically throwing away the sound body of experienced seamen ready at India's hand at the close of the last war, upon which a sound and flexible system capable of rapid expansion in an emergency might have been built. This was an index of official indifference to the development of an Indian navy and may be explained only by their complete dependence on the Royal Navy to guard the oceanic highway and the coast-line of India. The Royal Navy continued to guard the coast-line of India for which a sum of £100,000 was paid annually. It was not anticipated that the Royal Navy might some day be left alone to contend with the German and Italian fleets and to guard the seas of the world at the same time. It was also not foreseen that a war would threaten India from the east.

Rawlinson Committee

Following the rejection of his scheme of reorganisation, Rear-Admiral Mawby resigned his appointment as Director of the Royal Indian Marine and returned to the United Kingdom, where he registered a strong protest. Subsequent to this, in 1925, a Departmental Committee was appointed by the Government of India with Lord Rawlinson, the Minister of Defence and Member of Council in charge of the Defence portfolio, as its chairman, with the purpose of submitting a scheme for the reorganisation of the Service as a combatant force. The scheme put forward by the Committee was for (i) reorganisation of the Service as a purely combatant force with the title of the Royal Indian Navy, (ii) an initial strength of four armed sloops or escort vessels, two patrol vessels, four mine-sweeping trawlers, two surveying ships and a depot ship and (iii) the whole to be commanded at first by a Rear-Admiral of the Royal Navy on the active list. This was accepted by the Indian and the British Governments and an Act was passed through both Houses of Parliament to permit India to have a navy.

Recovery

The Royal Indian Marine was restored to combatant standing in 1928, but the full recommendations of the Rawlinson Committee

could not be complete without the enactment of a new Indian Naval Discipline Act. Even then, the financial administration of the Royal Indian Marine left much to be desired. Proposals were required to be submitted to the Secretary of the Defence Department in the Government of India for inclusion of figures in the general Defence Estimates. These were submitted to a Committee consisting of the Commander-in-Chief in India and his Principal Staff Officers, but there was no Naval personnel among these or any representative of the Royal Indian Marine. The sum at the disposal of the Defence Department, moreover, was barely sufficient for the defence requirements, with the result that any proposals from the Royal Indian Marine had to be considered not merely from the point of naval defence but in the light of the money available for the total defence of India in which the army played a major role at the time.

Recruitment to the Royal Indian Marine at this stage was open both to the Indians and the British but, in practice, very few Indian officers joined the service. The first Indian officer to enter the Naval service was Engineer Sub-Lieutenant D. N. Mukerji, R.I.N. on 6 January 1923.

The new Indian Naval Discipline Act was introduced as a Bill in February 1928, but failed by one vote to pass the Assembly. In February 1934, the Bill was introduced again with a few minor amendments, and was finally passed in August 1934 both by the Assembly and the Council of State.

On 2 October 1934 at Bombay, the Royal Indian Marine ceased to exist and the Royal Indian Navy was inaugurated. It was during this stage that the Service began to assume a form with Naval Headquarters at Bombay, under Flag Officer Commanding Royal Indian Navy (FOCRIN) and on paper the Royal Indian Naval Reserve (R.I.N.R.), the Royal Indian Naval Volunteer Reserve (R.I.N.V.R.), the Royal Indian Fleet Reserve (R.I.F.R.), Special Service and 'Hostilities Only' ratings and establishments at the outposts. As will be seen in this narrative, progress in respect of various plans was painfully slow, and the outbreak of war found the Royal Indian Navy inadequate to meet the situation.

Steady Growth of the R.I.N. between 1934-1939

During the five years before the outbreak of the Second World War, the Royal Indian Navy was built up into a small but efficient combatant naval force. By 1939, it comprised five sloops, a survey vessel, a patrol ship, a depot ship and numerous small craft. The Chatfield Committee in February 1939 made far-reaching recommen-

dations for taking over increased responsibility for the naval defence of India by the Royal Indian Navy and for her modernisation.

Shortly before the outbreak of war, the navy began to establish reserves. The Royal Indian Naval Reserve was made up of serving officers of the Indian Mercantile Marine. The Royal Indian Naval Volunteer Reserve originally had two branches—Executive and Accountant. An Engineering Branch was added on the outbreak of war. R.I.N.V.R. officers were recruited from the general public and were given intensive training for six months at Bombay.

In addition to the ordinary continuous service ratings, the Royal Indian Navy recruited Special Service ratings who served for 5 years and were then transferred to the R.I.N. Fleet Reserve for 10 years. In addition, 'Hostilities Only' ratings were recruited from the personnel of the Merchant Marine.

CHAPTER II

The Eve of War

International Situation

Between the two world wars, there had been an alteration in the world geographical distribution of naval power. Britain and France did no longer possess a monopoly. Germany emerged as a strong contender of their supremacy. The U.S.A. and Japan also possessed strong and modern battle-fleets and the Italian naval power became a force to be reckoned with. Both Japan and Italy who were Britain's allies in the First World War were now no longer dependable, and the danger was that, in the event of a war, any naval conflict with these powers would pose a threat to India. Also, in case of a breakdown in Britain's naval strength in the Indian Ocean, sea communications would be disrupted and the effectiveness of the army which depended for supplies and equipment on the United Kingdom adversely affected.

U. K. Government and Indian Naval Defence

In January 1938, the British Government agreed to forego the annual subvention of £100,000 and miscellaneous annual charges of £15,000 to £20,000 on condition that the Government of India maintained a sea-going squadron of not less than six modern escort vessels which would be free to co-operate with the Royal Navy in the defence of India and that India would, in addition, undertake responsibility for the local naval defence of Indian ports. The contributions accordingly ceased from 1 April 1938.

Nine Year Plan

In order to implement this agreement, the Flag Officer Commanding, Royal Indian Navy submitted in March 1938, a plan known as the Nine Year Plan. He made the following proposals:—

(a) The active service strength to be increased:—

Commissioned Officers	from 101 to 169
Warrant Officers	from 52 to 104
Ratings	from 1,140 to 2,562

(b) Reserve officers and men to man auxiliary vessels and form defence complement:—

R. I. N. R. Officers	..	252
R. I. N. V. R. „	..	71
R. I. N. R. Ratings	..	912
R. I. F. R. „	..	593
Communication Reserve	..	286

- (c) Adequate training cadres for Boys and Apprentices in skilled trades which would be separate from those allowed for active service.
- (d) The *Hindustan* and the *Indus* (sloops) were to be re-armed; the *Cornwallis*, the *Lawrence* and the *Clive* (sloops) to be replaced. One further new escort vessel was to be built to bring the number up to six.
- (e) Six small minesweepers and eight motor torpedo boats were to be provided for local naval defence.
- (f) Provision was to be made for taking up 48 auxiliary vessels in the event of war. Of these, 25 were to be fitted as minesweepers and 23 as anti-submarine vessels.
- (g) Training establishments and instructional equipment were to be provided. It was considered that the main training and manning depots should be situated at Bombay, Cochin and Vizagapatam with sub-depots for subsidiary training of Reserve officers at Calcutta, Madras and Karachi.
- (h) Provision was to be made for the replacement of ships by means of a sinking fund.

Recommendations of the Chatfield Committee

Spread over a period of nine years, the proposals entailed a capital expenditure of Rs. 733.3 lakhs and a recurring annual cost of Rs. 64.1 lakhs. This scheme was re-examined by the authorities in India, who considerably amended the proposals which had the agreement of the British Naval Staff. Later, the whole problem was studied afresh by the Chatfield Committee (February 1939) which recommended expansion of the Royal Indian Navy by the construction of four 'Bittern' class escort vessels, four 'Mastiff' class trawlers and loan of four 'Halcyon' class,¹ besides the coming of the *Indus* and the *Hindustan*. These measures were to be completed in five years, instead of nine; but the outbreak of war in September 1939, although not leading to any deviation from the

¹ Appendix I

principles of the Chatfield Report, greatly increased the tempo of the expansion of the Royal Indian Navy.

Naval Headquarters Organisation

On 1 October 1939, the Royal Indian Navy was manned by only 114 Officers and 1,732 ratings, as the naval defence of India was primarily the responsibility of the British Government. The Headquarters of the tiny Royal Indian Navy was confined to the dockyard area in Bombay and was organised on the lines of a Naval Squadron afloat, though it remained permanently ashore. The Headquarters, under the FOCRIN, was staffed with only sixteen Officers.²

The NHQ organisation worked adequately during peace as the Service administered was small and was based upon only one port, Bombay. Until the outbreak of war forced the creation of appointments at outports with the increase and dispersal of ships, this staff was sufficient. It was quite inadequate, however, to cope with the volume of expansion which took place in the first few months of the war, when more ships and shore establishments were added to the Navy, and closer touch with the other two Services and with the Government of India became necessary. Occasional visits were paid by the FOCRIN to New Delhi. As he had to maintain close control over the operational and organisational aspects of the Royal Indian Navy at Bombay, he was less in a position to visit New Delhi at frequent intervals to improve his contacts with the Government. Urgent matters of policy and of financial sanction, however, would come up for decision every day, and often involve wasteful and vexatious signalling between Delhi and Bombay. Cases requiring financial sanction, for example, went from the Naval Headquarters at Bombay to the Deputy Financial Adviser, Air Force and Navy, at New Delhi. Whereas the Air Headquarters, being on the spot, could obtain financial advice immediately by personal discussion, the Naval Headquarters, owing to its being in Bombay, found itself greatly handicapped in securing expeditious disposal of cases. The situation had not substantially improved by the appointment of a Naval Liaison officer with the Government of India in October 1939 and in March 1941 the Naval Headquarters was transferred to New Delhi.³

² Appendix II

³ For Base Facilities see Appendix III. Shore establishments of the Royal Indian Navy during the War are given in Appendix IV.

Ships in Commission

The following table gives brief particulars of the Royal Indian Navy ships on 1 September 1939⁴ :—

<i>Name</i>	<i>Type</i>	<i>Date of completion</i>	<i>Displacement (in tons)</i>	<i>Main Armament</i>
<i>Clive</i>	Sloop	1921	2,021	Two 4", four 3-Pdr., Two 2-Pdr.
<i>Cornwallis</i>	„	1917	1,383	Three 4", four 3-Pdr., Two 2-Pdr.
<i>Hindustan</i>	„	1930	1,190	Two 4", four 3-Pdr.
<i>Indus</i>	„	1934	1,190	Two 4.7", four 3-Pdr.
<i>Lawrence</i>	„	1919	1,225	Two 4", Four 3-Pdr., Two 2-Pdr.
<i>Madras</i>	Target Towing Trawler		413	1 QF 12-Pdr. 12 cwt. (low angle)
<i>Pathan</i>	Patrol vessel		695	2 QF 12-Pdr. 12 cwt. (low angle)
<i>Investigator</i>	Survey Ship	1924	1,572	1 QF 4" Mk IV (low angle).

With the exception of the *Indus* and the *Hindustan*, no ship was capable of steaming at 16 knots. Close-range weapons consisted of Lewis Multiple 5" guns and single "pom-poms", inadequate for effective defence against modern air attack, and in 1942, the *Indus* was actually lost in one such attack. It may be noted that the main armament of all vessels consisted of hand-worked low-angle (L/A) guns. When the *Hindustan* was built in 1930, high-angle (H/A) guns were being fitted in the Royal Navy sloops but under the impression that the Indian ratings did not possess the requisite physical strength to handle H/A ammunition, the *Hindustan*

⁴ For ships of the Royal Indian Navy in 1944 see Appendix V.

was fitted with L/A guns only. When the *Indus* was built in 1934, the Admiralty policy was to fit two 4.7" L/A and one 3" H/A gun into the sloops then under construction. Owing to the modification in design, however, to fit the *Indus* as a Flag-ship, the 3" gun was not fitted.

By 1936-37, the physical standard of the Indian rating was viewed differently and the question of re-arming the *Indus* and the *Hindustan* with high and low angle guns was taken up with the Admiralty. But difficulties arose from the need to carry out the work either at Singapore or Malta. The supply situation had also become acute with the re-arming of the Royal Navy ships, and as a result, in 1939 the *Indus* and the *Hindustan* still carried their old armament.

Plans were made to fit the Royal Indian Navy ships with Type 123 Anti-submarine Detection sets but were not carried out. H.M.I.S. *Pathan* was fitted with this set. Even this was then obsolescent. The *Investigator* was fitted with an echo-sounding set; there was no hydrophonic or radar equipment.

Due to the lack of a progressive replacement policy, the Royal Indian Navy at the outbreak of war possessed only two reasonably modern ships, the *Indus* and the *Hindustan*, but even these were overdue for re-arming and refitting. As regards the Naval Armament Supply Organisation before the war, the arrangements for the supply of ammunition, and repairs to guns and other armament stores for the small fleet were controlled by the army. The only depot available was in Bombay. It consisted of an ammunition storage depot at Butcher Island and a small section on the mainland, with store for guns and spare parts and an Ordnance Workshop for repairs. The Officer-in-Charge of the area was known as "Ordnance Officer, R.I.N. Group, Bombay." This system proved to be unsatisfactory early in the war, and was replaced later.

Training Establishments

When war broke out in September 1939, all the R.I.N.'s Training Establishments were concentrated inside the R.I.N. Dockyard, Bombay. These consisted solely of the Seamanship School, the Signal School, the Gunnery School, the Mechanical Training Establishment, the Boys' Training Establishment and the Anti-submarine School. There were no Officers' Training courses at all; no torpedo or electrical school and no radar training. The total number of personnel engaged on instructional duties did not exceed 16 officers and a dozen Warrant officers. Officers were trained in the United Kingdom in Royal Navy Establishments.

It is interesting to note, in brief, the types and manner of training conducted in the Training Schools and Establishments before the outbreak of war.

- (a) *Boys' Training*.—The hulk H.M.I.S. *Dalhousie* moored alongside the breakwater in Bombay was the R.I.N. Boys' Training Establishment from 1928 to 1940, but it was not satisfactory from the accommodation or equipment points of view; and in 1937 Vice-Admiral A.E.F. Bedford, C.B., C.S.I., evolved a scheme for a new Boys' Training Establishment at Karachi. The foundation stone was laid by Vice-Admiral Sir H. Fitzherbert, K.C.I.E., C.B., C.M.G., in 1938 and H.M.I.S. *Bahadur* was finally completed and commissioned in May 1940. Instruction began there in the same month.
- (b) *Seamanship Training*.—Before describing the training of seamen, it may be mentioned that there were three types of ratings in the R.I.N. :
- (i) Continuous Service Ratings who had engaged, normally as Boys in peace-time for 10 years' Active Service and 10 years in the Royal Indian Fleet Reserve;
 - (ii) Special Service ratings who had engaged for 5 years' Active Service and 5 years in the R.I.F.R.; and
 - (iii) 'Hostilities Only' ratings who were ex-Merchant Service professional Seamen, Stokers, etc., recruited to man requisitioned ships. At the outbreak of war, recruitment for Continuous Service ratings (except Boys and Artificer Apprentices) temporarily ceased. 'Hostilities Only' ratings were regarded, at recruitment, as being fully trained and experienced professional seamen, and were given no training other than that received on the ship on being drafted to sea.

It was therefore only the training of Special Service ratings that received attention. Recruitment of Special Service ratings in the Seamen and Stoker branches began in early 1938. To meet the expansion of the Service and to cope with the training requirements for these men, construction of an R.I.N. Depot on the site of the old Bombay Castle, then in use as an arsenal, was planned. In September 1939, however, this Depot was still a long way from completion and instruction of Special Service ratings had to be carried out in the R.I.N. Barracks inside the dockyard.

- (c) *Gunnery Training*.—When the war broke out in 1939, the R.I.N. Gunnery School was situated in H.M.I. Dockyard, Bombay. It had been established there in 1928 when it consisted of a shed used as a Battery, together with a small hut. A small open area behind the Sawmill was the only space available as a parade ground. Ratings under training were accommodated in the Depot Barracks and officers either lived in the *Dalhousie* or ashore. In 1934 special arrangements were made with the Admiralty for limited number of R.I.N. officers to qualify in Gunnery at H.M.S. *Excellent*, Portsmouth. These officers spent brief periods on their return instructing in the Gunnery school. Till 1939, Gunnery requirements of the R.I.M. and R.I.N. were small, and the number of Gunnery ratings under training needed only one or two Specialist officers and about four Gunners Mates for instruction. One Gunners Mates' class per year and three or four other Gunnery non-substantive courses kept the squadron up to strength with Gunnery rates.

It was, however, realised that should hostilities break out, the facilities existing in 1938 would be wholly inadequate for training purposes. A scheme was put up before the Government in 1939 for the construction of a Gunnery School capable of training Gunnery ratings for the new ships but when war broke out, it had not been carried out.

It was not till 1939 that the first tangible Gunnery expansion since the end of World War I took place when an Ordnance Artificer section was constructed very near the old Boat Slip in the Dockyard. A Range Finding Director with Fuse Keeping Clock and Fire Control Board equipment was installed in this section for training ratings for ultimate new construction.

- (d) *Anti-Submarine Training*.—Before July 1939, Anti-Submarine training was not catered for at all in the Royal Indian Navy, but in that month an Anti-Submarine School on a very small scale was opened in the R.I.N. Dockyard and remained in operation on that site for about one and a half years. There was at first only one qualified instructor available. As the war progressed, and it became clear that the submarine was once more the enemy's principal weapon at sea, considerable expansion in Anti-Submarine training became essential. For this

reason, and in conformity with the policy of moving out of the Dockyard an Anti-Submarine School was opened in Castle Barracks early in 1941.

- (e) *Signal Training*.—Up to the end of 1940, Signals Training was also concentrated in the Dockyard. It suffered like other branches from extreme shortage of space, shortage of instructors and shortage of equipment and instructional handbooks. Accordingly, in January 1941, it was decided to build a new Signal School in Colaba and this new school was commissioned on 1 April 1941 as H.M.I.S. *Talwar*.
- (f) *Mechanical Training Establishment*.—The R.I.N. Mechanical Training Establishment was situated inside the Dockyard, Bombay, forming part of the R.I.N. Depot and attached to H.M.I.S. *Dalhousie*. This establishment was a development of the former R.I.N. Stokers' Training School. It consisted of a covered hall of 100 feet by 30 feet in dimension. Half a dozen lathes, one each of slotting, planing, milling and shaping machines, about a score of vices, two coppersmiths' hearths and a class room comprised its whole training equipment. There was no separate barrack for Stoker ratings undergoing courses. Leading Stokers and Stoker P.Os. were given a qualifying course for mechanics.

In 1936 this school was renamed the Mechanical Training School and in the following year it was designated the Mechanical Training Establishment. An Engineer Officer who had qualified in Mechanical Training Establishment at Chatham was appointed Officer-in-Charge (Lt. Coverdale Smith, R.N.). Between 1936 and 1939 rapid strides were made in the development of the Establishment. Modern machinery and other training equipment were installed and instruction was undertaken on set syllabi entailing a higher standard of theoretical instruction and practical workmanship. In 1938, Acting Leading Stokers' courses were started; owing to the acute shortage of mechanics in the Service, an Advanced Leading Stokers' class was also commenced from which about ten ratings qualified and were promoted Acting Mechanician II class (temporary). A scheme was also introduced for the training of Artificer Apprentices, as well as Direct Entry Artificers. Expansion of this Estab-

blishment was based on the Nine Year Plan, as adopted by the Chatfield Committee.

At the outbreak of war, the position was as follows: The ship's company of the Mechanical Training Establishment consisted of six officers and some 25 ratings; under instruction there were 50 Artificer Apprentices, 25 Direct Entry Artificers, 20 Acting Leading Stokers, 25 Stokers II (Special Service) and 30 Stoker Boys—a total of 150 trainees.

Scale of Threat Envisaged

The nature of threat to Indian ports envisaged in the event of war with Japan was as follows :—

- (a) Surface attack and minelaying by cruisers or armed merchant vessels.
- (b) Attack by submarines, (i) by gunfire at moderate and close ranges, and (ii) by mine or torpedo on shipping in the harbour or immediate approaches.
- (c) Attack from the air by light seaborne forces.

Elaborating upon this danger, the Chatfield Committee pointed out that such raids “could inflict much material damage and cause serious alarm among the civilian population”. In addition to the risk of sporadic attacks on her coasts, the Committee recognised the other great danger to India, namely interruption of her vital sea communications by either hostile naval or air forces. It was pointed out that “such risks emanate not only from Japan but also from Italy in the event of a World War in which Italy was engaged against the Empire”. The Committee's concern with this aspect of India's defence is seen not only in the Naval section but in other parts of the report also.

Local Naval Defence

Priority for local naval defence was recognised as early as 1923 by the Committee of Imperial Defence. In 1938, as stated earlier, the British Government agreed to forego the annual subvention with a view to provide an adequate defence of Indian ports. The reason for this emphasis on local naval defence is not far to seek. Both for India's own internal security and defence and for a vital link in the Imperial war effort, protection of India's great ports—Bombay, Karachi, Calcutta, Madras, Cochin and Vizagapatam—was an obvious necessity. Bombay, being the base of the R.I.N. itself, contained the main repair facilities available to British and Allied war vessels

serving on the East Indies Station. In addition, it was realised that all these ports would, on the outbreak of war, assume major importance as convoy assembly ports, emergency routing ports, ports of refuge for merchant ships, centres for the fitting out of armed merchant cruisers and the defensive armament of merchantmen, and military embarkation and disembarkation and supply ports.

Recommendations in Sections B and C of the Chatfield Committee's report were designed to protect the defended ports and their immediate approaches against attack by mine or torpedo. But it still left the problem of attack of these ports by hostile air bombardment either by seaborne aircraft or land based aircraft. It was not considered that local naval defence vessels could offer effective defence against these forms of attack. All H.M. and H.M.I. ships would have other duties to perform, and would therefore not be available for permanent stationing for this purpose. The counter-measure against the air attacks mentioned above was defence by coastal batteries, with assistance, where possible, by aircraft. The Chatfield Committee examined the situation in detail and formulated recommendations upon the type and calibre of guns which would be installed at sites in the various ports. It was proposed that two of the bomber squadrons of the Air Force were to be specially trained and equipped to undertake the dual role of duties on the frontier and for coast defence. It was also proposed that five flights of aircraft should be raised on a volunteer basis to assist in the defence of the ports. It was considered that with these defences, so long as the scale of attack was no greater than that of a cruiser or armed merchant vessel operating some thousands of miles from its base, bombardment of the ports would be unlikely.

Local Naval Defence Plan

The Nine Year Plan provided for the taking up in the event of war of 48 merchant vessels, 25 to be fitted out as auxiliary minesweepers and 23 as auxiliary anti-submarine craft. These were to be distributed among the ports as follows :—

Karachi	3	Auxiliary Minesweepers.	2	Auxiliary A/S Vessels.
Bombay	4	-do-	6	-do-
Calcutta	15	-do-	10	-do-

and the remaining 8 vessels were to be used for similar duties at Madras, Cochin and Vizagapatam. Those vessels on being taken were to be manned by their peace-time mercantile crews signed on under the T-124 (India) Agreement, or by other local personnel,

plus Naval Reserve Officers and ratings as and when available. The vessels intended to be used for this purpose were earmarked beforehand and appropriate lists maintained.

In addition to these active measures against hostile attack, a number of standardised precautionary measures were prescribed for the ports in respect of control of shipping, entry into the ports, etc. Thus arrangements were made for the immediate operation of an Examination Service functioning under a Chief Examining Officer, the work in each port to be carried out by members of the local Pilot Service in addition to their normal duties, assisted by the personnel and craft of the respective Port Trusts. This Service was naturally to work in close co-operation with the Examination Battery at each port, and with the assistance of the Port War Signal Station. Examination anchorages had also been defined. Uniform regulations governing the conduct of the Examination Service, procedure regarding the detention of ships and cargoes and 'Droit de Prince', (Rights of the Prince) had been laid down in CB 1818 (R) (Hand-book on the Examination Service and Issue of Local Traffic Regulations 1938) and in D.O.I.1935 [Detaining Officers War Instructions (India) 1935] whilst the regulations governing the entry of British and Allied warships and British, Allied and neutral merchantmen into Indian ports and procedure of Port War Signal Stations were tabulated in CB 1618 Q (Instructions for entry into British Defended Ports 1938).

Defence Scheme

It was obvious that these precautions could not be put into effect swiftly and with uniformity at each of the defended ports on the outbreak of war without the existence of some pre-arranged administrative machinery. It may be of interest to study how the precautionary plans fitted together in respect of any one port. Bombay, being the most important from a naval point of view, will be the best example.

The anticipated local naval defence plans for Bombay were :—

- (a) A minesweeping flotilla of four auxiliary minesweepers to maintain a swept channel (as defined by Admiralty Instructions marked by buoys).
- (b) An anti-submarine flotilla of six auxiliary vessels to provide a swept channel to harbour and also act as patrol ships.
- (c) A harbour patrol of two launches or motor boats covering the area within the harbour limits. These were to be

armed with Lewis or machine guns and were to patrol the harbour by day to see that no country craft were under way without a pass, and to keep a look out on all vessels at anchor, and by night to maintain a specific patrol on the eastern side of the harbour.

During the precautionary and war stages, the Naval Officer-in-Charge, Bombay, and staff were responsible for the following duties :—

- (a) To request the Government of India to authorise the requisitioning of all vessels required for local naval defence duties.
- (b) To arrange to fit out and equip such vessels.
- (c) To request the Bombay Government to take steps to keep secret the movements of His Majesty's and merchant ships.
- (d) To apply to the Bombay Government for authority to requisition accommodation required.
- (e) To request the Bombay Government to instruct marine engineering and shipbuilding firms for a prior claim to their services.
- (f) To arrange with the Naval Stores Officer to purchase such naval stores as would be necessary for the probable requirements of auxiliary vessels to be based on the port.
- (g) To arrange to engage civilian personnel to assist in coding and ciphering until such time as Volunteer Reserve Personnel were detailed for these duties.
- (h) To put in hand arrangements for buoying the searched channel.
- (i) To inform the Port War Signal Station of the expected time of arrival of ships supplied with the "private" signal, and also of the current reply.

Organisation and detailed plans at other ports were of a similar nature differing mainly in degree and in local requirements. Thus at Calcutta, an integral part of the port defence scheme lay in shifting the positions of the normal navigation buoys; it was considered that in view of the great navigational difficulties presented by the Hooghly, this in itself was a considerable measure of defence, though the FOCRIN was of the opinion that too great a reliance should not be placed on this fact.⁵

⁵ For a list of Flag Officers Commanding Royal Indian Navy during the Second World War see Appendix VI.

At Karachi, the officer responsible for making the necessary defence arrangements during peace-time and during the precautionary and initial war stages was the Sea Transport Officer, and at Calcutta, the Principal Officer, Mercantile Marine Department. In each case, upon mobilisation being decided upon, these officers assumed the duties of Naval Officer-in-Charge at their respective ports.

CHAPTER III

The Early Stages of War

Declaration of War and Early Developments

On the outbreak of war in September 1939 the Viceroy of India, Lord Linlithgow, declared India to be at war without consulting Indian political leaders. India was thus committed to war and her forces joined the Allies in various theatres of war without undergoing any radical alteration either in numbers or equipment. Suggestions for reorganisation and modernisation had not been implemented yet. The Chatfield Committee's recommendations were obviously not intended to meet the challenge of immediate hostilities. At the same time, subsequent expansion of the Royal Indian Navy up to September 1943 did follow to a great extent the principles and suggestions laid down in the report. The task of the Royal Indian Navy remained the defence of India's ports and protection of her sea communications and it was to this end that all measures to expand this Service were geared.

When war broke out, it was found possible to take up only 31 out of the 48 vessels required for local naval defence, and for some months the Royal Indian Navy made shift with these alone. In May 1940, the Admiralty intimated that should the war at any time spread to the Far East, "it will be necessary considerably to augment the small craft at present available for minesweeping, anti-submarine and patrol duties at defended ports in the Indian Ocean and China seas." The Admiralty further considered that if Germany found it possible to operate U-boats in the Indian Ocean "as a result of either Russia or Japan affording her base facilities", the minimum number of small craft required at Indian ports in addition to existing local naval defence vessels, would be as follows :—

<i>Bombay</i>	-3- 105 ft. Mine-sweepers	-10- 110 ft. Fair- miles for A/S duties, and 4-72 ft. motor launches for local patrols.
<i>Karachi</i>	-3- 105 ft. „	-do-
<i>Calcutta</i>	-8- 105 ft. „	-10- 110 ft. Fair- miles for A/S duties.

<i>Madras</i>	-4- 105 ft. Mine-sweepers	-10- 110 ft. Fair- miles for A/S duties and 4-72 ft. motor launches for local patrols.
<i>Cochin</i>	-4- 105 ft. „	-4- 110 ft. Fairmiles for A/S duties.
<i>Vizagapatam</i>	-4- 105 ft. „	-do-

These requirements were subject to further increases if Japan or Russia entered the war against the Allies.

In June 1940, the Commander-in-Chief, East Indies, pointed out that India's extensive waters were "easily mineable, and contained attractive targets for submarines", and recommended that such numbers of fast anti-submarine and minesweeping vessels should be provided as would allow continued sweeping and patrol at each port; and in a signal in August 1940 he advised that the Government of India should provide at least two Bangor class mine-sweeping vessels, fitted for both anti-submarine and minesweeping work, at each of the six major ports—these vessels being fast enough to comprise an efficient hunting force. The FOCRIN thereupon drew up a construction programme envisaging the provision of a force of 18 fast anti-submarine minesweeping vessels—being the allowance of two per port, plus the necessary margin for refitting and boiler cleaning and for war eventualities—together with 43 Basset trawlers (slower anti-submarine and minesweeping vessels), 19 Fair-mile launches, 8-105 ft. minesweepers and 12 patrol launches.

Supply and shipbuilding facilities assumed importance at this stage; Australia, the United Kingdom, Hong Kong and Singapore as well as India's own yards, were all investigated as potential sources of supply. Two Bangors were sanctioned for building in India, and four Bathursts (vessels of largely similar type) in Australia in the autumn of 1940, but it was not till August 1941 that nine more Bangors were sanctioned for construction in United Kingdom and three more Bathursts in India, thus making up a total of 18. In April 1941 two additional Bangors were sanctioned to be built in India.

The remainder of the construction programme was also subjected to some modification, the number of Fairmiles sanctioned being ultimately 24, that of 105 ft. minesweepers 11, and patrol launches 28.

Acquisition of Ships

Due to the dependence on the British Navy, the extent of India's weakness in her own naval arm was never fully appreciated. It needed the threat of a World War for steps to be taken to plan the expansion of the Royal Indian Navy even on a modest scale. The practical application of the plans lay in the expansion of the navy to meet wartime requirements. It was only in 1939 that sanction to expand the service was obtained. As it was, the foundation and expansion had to be provided for simultaneously. With a few more years of peace the R.I.N. would have had a skeleton organisation to meet the emergency of the war.

It was a matter of grave concern that the "minimum insurance" of six escort vessels proved far below the ultimate requirements of war. The inadequacy was closely linked up with the question of finance. With her long coastline vulnerable to attack and her far-flung sea supply lines, the proportion of expenditure as recommended by the Chatfield Committee on Naval defence was insufficient. Out of a total net capital cost of Rs. 45.09 crores, the R.I.N.'s allocation was Rs. 2.62 crores which was 5.8 per cent of the whole, representing only one-third of the expenditure recommended for the Indian Air Force and about one-fourteenth of that recommended for the Army. This was, of course, because of the expectation that the Eastern Fleet of the British Navy would guard the Indian Ocean.

On the outbreak of war the following vessels from the trade were taken up :—

Minesweepers

Badora
Bhadravati
Chandbali
Haideri
Hiravati
Kutubtari
Lady Craddock
Lilavati
Nulchira
Oostacabelle
Padmavati
Prabhavati
Rukmavati
Sandip
Sandoway
Satyavati

Patrol Vessel

Dipavati
Hashemi
Irrawadi
Kalavati
Netravati
Pansy
Parvati
Ramdas
Ratnagiri
Sonavati
St. Anthony

Minesweepers

Selama

Sophie Marie

Sitakhoond

Victoria Marie

To man the vessels and to run the port offices, transfers of Active Service officers were made and a great increase in Reserves took place. An indication of the manning situation provided by the immediate taking up of the 31 auxiliaries named, is found in the figures of the complement of a representative auxiliary minesweeper of average strength :—

H.M.I.S. BHADRAVATI

<i>Officers</i>	:	1 Lieutenant R.I.N.R. (in command)
		1 Lieutenant R.I.N.V.R.
		1 Sub-Lieutenant R.I.N.R.
<i>Warrant Officers</i>	:	1 Boatswain R.I.N.R.
		1 Warrant Chief Engineer R.I.N.R.
		2 Warrant Engineers R.I.N.R.
<i>Ratings</i>	:	Active Service 'Hostilities Only' Service
Seamen	4	18
Stokers	1	10
Signalmen	2	—
Telegraphists	2	—
Artificers & Artisans	—	8
Domestics	—	2

At the outbreak of the war, only two ports, Bombay and Calcutta, were in a position to carry out the change-over from merchantship to auxiliary warship. It was necessary, therefore, to concentrate all the ships selected either at Bombay, which took two-thirds of the total number, or at Calcutta which took the remainder. About ten companies were concerned and among them the Bombay Steam Navigation Company, the Scindia Steam Navigation Company Calcutta, and the River Steam Navigation Company, Calcutta, were the important ones engaged in the task of reconstruction. As fast as the ships were taken over, each ship was required to be manned at the same speed on a scale similar to that already given, according to its size.

Recruitment

The following figures will indicate the strength of the R.I.N. prior to the outbreak of war and soon thereafter in 1939 ;—

	Prior to the outbreak of war	On 31 December 1939
Officers (including Warrant Officers)	209	343
Ratings	1,443	2,854

It is clear from these figures that the strength of the R.I.N. was nearly doubled within three months. This increase was unique in the naval history of the world, and indicated the utter inadequacy of the existing establishments and the importance of the pre-war schemes of expansion.

As regards the recruitment of officers, out of the mercantile marine officer serving in the ships acquired for war purposes, only a few were recruited on T124 (India) agreement into the R.I.N.R. The Engineer officers were mainly British subjects and were recruited easily enough, but they were on different rates of pay according to the rates prevalent in the respective companies and had to be brought to a uniform and acceptable scale.

The problem in respect of ratings was no easier. Deck crews from Daman were Portuguese subjects and could not be recruited while the remainder of the seamen crews of the ships taken over, were usually Hindus, not willing to serve in a Service consisting of mainly Englishmen and Muslims at that time. In consequence, entirely new crews had to be found and signed on at the Shipping Masters' Office in Bombay and Calcutta. These men refused to engage at coastal rates of pay and would serve only on deep sea rates plus a war bonus. At this time the mercantile rates of pay were increasing rapidly under the stimulus of competition between companies for the services of men who were insufficient in number for all the berths available. The battle of rates became a tug of war with the Mercantile Marine gaining the upper hand, absorbing to itself good seamen and leaving those of a low standard to be recruited by the Royal Indian Navy.

The recruitment of 'Hostilities Only' ratings was the outcome of this rate war. These recruits were of exceptionally low physical standard and more than two-thirds of each batch sent before a medical officer were rejected. This was in spite of lowering the standards of physical fitness in an endeavour to speed up manning the ships. The volume of rejections even under the lower standards of physical fitness continued to remain high and therefore the task of manning the ships became more difficult. The problem of rates of pay which was another reason for the unwillingness of the ratings to enlist in the Navy has been treated in other chapters,

The original agreement T124 (I) upon which Warrant officers and ratings were signed, was similar to the merchant shipping agreement in that it was a contract between each ship and her own crew for twelve months. As the rate war raged between the shipping companies, the pay of 'Hostilities Only' ratings continued to lag far behind and there was little inducement for a rating to renew his agreement on its lapse. In this way the second year of war commenced with considerable time being taken up in renewing agreements and recruiting afresh where this was not possible.

To meet this particular difficulty, on 30 May 1942, a new agreement, T124 (I) was introduced between each man and the Government of India for the duration of the war. By this agreement, the man could not claim release as a matter of right but Government could discharge him at 24 hours' notice. At the same time a new rate of pay was introduced. In respect of pay, not only had the conflicting rates of Bombay and Calcutta for 'Hostilities Only' ratings to be reconciled, but Government sanctions also had to be obtained, and Calcutta brought into line with the rates authorised.

Accommodation existed in Naval Barracks, Bombay for about 270 men, including that of ratings standing by the two ships periodically under refit. This was speedily swamped by men recalled from leave, with overflows under sheds and wherever a man could be squeezed in. The 'Hostilities Only' recruits were bundled aboard their ships in quick time, but even then the situation was completely out of control in respect of living quarters. It was at that time that work commenced rather at a slow pace upon new quarters in Bombay Castle. As these were not available for occupation before January 1941, the position remained unsatisfactory for some time.

Clothing was provided to some extent from Depot Clothing Store, but as the requirement was double of that before the war, heavy demands became necessary upon the Sail Loft for new garments, on a large scale. This problem of providing clothing in adequate quantities persisted for a long period. The following Royal Indian Naval Barracks Staff managed all rationing, clothing, accommodation and pay in the first instance.

Executive Officer, Depot (who .. Lt. Cdr. R.I.N.
was also the Drafting Officer)

General	..	..	..	One Chief Petty Officer Writer
				One Petty Officer Writer
				Four Writers

This staff also recruited all Special Service ratings and dealt with the kitting up of all recruits, medical inspection and similar duties. Some 1,400 individual Dockyard passes had to be issued to recruits. The entire burden of providing rations to the new entrants fell upon the Executive Officer and the Chief Petty Officer. Any breakdown in this section brought discontent and possibly desertions in the Service.

Training and Equipment

A special problem that faced the R.I.N. was the insufficiency of Gunnery rates for the gun crews for the 31 new auxiliary vessels. The Gunnery rates required by an auxiliary vessel varied with her armament in this manner :—

	<i>Required</i>	<i>Supplied</i>
4-inch Breech Loading Gun	7 ratings	4 ratings
4-inch Quick Firing Gun	7 „	5 „
12-Pounder Gun	5 „	3 „

The Breech Loading Gun was not in use in the Royal Indian Navy before the outbreak of war, and no training had been arranged for it. The more efficient Quick Firing Gun was not available in sufficient quantities to equip the newly taken up auxiliaries, so that the older gun had to be used. In any case, insufficient nuclei existed of trained Gunnery rates for gun crews and organisation of training courses became imperative. Further, as the deficiency of trained personnel was experienced, Able and Ordinary Seamen had to be trained as seamen gunners, and seamen gunners from the Special Service were requisitioned for training as Active Service gunlayers. Allowing for wastage it meant training some 200 men for the 31 new ships during the first two months of the war, with teams of four standing by for duty as fast as the ships were refitted.

On account of their illiteracy and low standard of education, it was not possible to train 'Hostilities Only' ratings in this way. Full complements of gun crews being out of the question, 'Hostilities Only' ratings had to be licked into shape on board as loading numbers. In the case of H.M.I.S. *Bhadravati* who had a gun crew of seven ratings four were new draft Active Service, and the remaining three were 'Hostilities Only' raw recruits.

In September 1939, the maximum possible expansion of the Gunnery School took place in the space available, namely the R.I.N. Dockyard. Fire Control, ammunition, land fighting and director sections were added in a building adjacent to the battery. In due course, another temporary battery was added, giving a total of five

guns (4" MK IV Quick Firing; 4" Mark IX Breech Loading and 6" Breech Loading-the latter for training gun crews for armed merchant cruisers fitting out in Bombay) available for training. In 1940, when the R.I.N. office moved out of its premises in the dockyard, a number of classrooms became available for theoretical and educational instruction, but at the same time the increased flow of naval stores caused part of the already small parade ground to be absorbed for storage purposes. Some slight relief was afforded by the Western Indian Football Association, who allowed their ground at Cooperage to be used for company drill once a week. Instructors consisted of one qualified gunnery officer as officer-in-charge, two gunners and two gunners mates.

In mid-1940 it became obvious that some provision would have to be made at once to increase the number of instructors, and the officer-in-charge inaugurated a long course of R.I.N.V.R. officers to fit them for gunnery instruction. At the same time Reserve Officers' short courses were commenced (of three weeks' duration) thereby throwing a further heavy burden on an already overstrained organisation. About the same time, ratings were multiplying in numbers, and Castle Barracks was opened up.

In the middle of 1940, the policy of clearing all training establishments out of the dockyard came into operation. In any case, the Gunnery school was now so hopelessly crammed for space that a move to more commodious premises was essential if efficient training was to be carried on. A new gunnery school became necessary and potential locations at Colaba, Dongri Point, Marve and Madh Island were considered. Several objections to any site in the Bombay area were raised by the Government of India such as proximity to residential areas and hospitals, high rentals of land, etc., hence the location finally chosen was on Manora Sandspit, Karachi, on the site of the old fort. Some difficulties and delays were experienced in the initial stages and it was not till early in 1942 that serious building operations were commenced.

About the same time, the Boys' Training Establishment, formerly situated in H.M.I.S. *Dalhousie*, was moved to Karachi and the ship was then utilised as training establishment for Special Service ratings. The total number of ratings that it was thus possible to train and accommodate there varied with the season. During winter it was possible to train 36 classes of 30 men, *i.e.*, 1,080 men plus 3 classes (90 men) on-sea training. During the monsoon the latter number had to be reduced to 60 men. Accommodation was the limiting factor; the figures given above were worked out (a) for the monsoon when 6' x 3' was allowed for sleeping, all men

being under cover and, (b) for fine weather when the upper deck, etc. was available for sleeping purposes. The total sanctioned ship's company was 26 officers and 145 ratings.

As the expansion of the service continued and recruitment gained momentum, the *Dalhousie* was found to be too small. A situation ultimately arose when the intake by recruitment had to be curbed directly owing to the limited accommodation in the training schools and this at a time when the service urgently required more men. As Castle Barracks was completed, the initial training of Special Service ratings was moved there, but this afforded only momentary relief, as space there also was extremely limited.

A word about the training of the Reserve Officers may not be out of place here. Up to 1924, selection of officers of the regular R.I.N. was made from officers of the Royal Naval Reserve who had obtained at least a Second Mate's Certificate. There were very few exceptions to the rule. After 1924, officers entered as cadets and were trained as Special Entry Cadets with the Royal Navy before going for service in India. There were again a number of exceptions to this rule, where necessary strength was made up by admitting officers from the Royal Naval Reserve.

Prior to 1938, there was no reserve of officers in the R.I.N., but with the threat of war, both R.I.N.R. and R.I.N.V.R. were formed, on lines similar to those in the United Kingdom, the R.I.N.R. officers being those who had seafaring experience, and at least a Second Mate's Certificate. First entries to this cadre began in March 1939.

On the outbreak of war, the training of Reserve Officers presented a difficult problem. R.I.N. had no officers' training school. There was also shortage of instructors. Existing training facilities were already taxed to their maximum capacity to cope with the expansion of the lower deck. Instruction started in the R.I.N. Barracks (Dockyard) towards the end of 1939, all courses being of three weeks duration, except anti-submarine course which lasted one week, till 1941 when the officers training was transferred to Castle Barracks, Bombay.

Operational Arrangements and Bases Available in India and Abroad

On the outbreak of war, the following appointments were created at the ports of Bombay, Calcutta, Cochin, Madras and Karachi :—

Naval Officer-in-Charge¹

¹ At Bombay these duties were carried out by the Captain Superintendent of the Dockyard in addition to his own.

Extended Defence Officer
 Base Engineer Officer
 Base Accountant Officer.

So far no mention has been made of the Royal Naval Force stationed in the Eastern waters upon which rested the task of defending India against any naval attack by the Japanese. It controlled sea communications in an immense area. The area of responsibility of the Commander-in-Chief, Eastern Fleet, covered not only the waters of South-East Asia but also Aden, the Persian Gulf and the east coast of Africa as far south as Madagascar.

In planning for the defence of India and calculating the size of a Japanese attack, military thinking was influenced by the conception of Singapore as a sea-girt citadel—an impregnable bastion of Imperial defence. It had been pointed out in 1933 by the General Staff while formulating a scheme for the defence of the port of Karachi that the nearest foreign naval bases to that city, apart from Persia's few gun-boats were :—

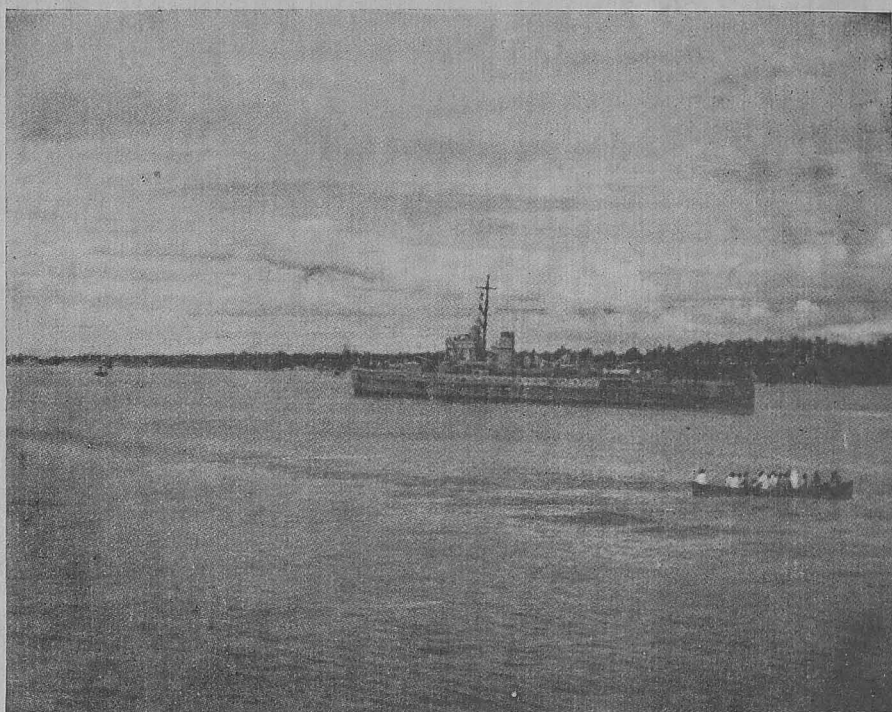
Diego Suarez (Madagascar)	: 2,450 miles
Saigon (Indo-China)	: 3,480 „
Manila (Philippines)	: 4,250 „
Keelung (Formosa)	: 4,560 „
Nagasaki (Japan)	: 5,255 „

It was upon these figures that India's defence by sea was planned. It was estimated that in the event of all the ports named above except the first falling into enemy hands in addition to Hong Kong, Singapore and small harbours on the Malayan and Burmese coasts, the enemy would be placed within the reach of India's coast—a distance of 700 miles. Against such attack, the R.I.N. if unsupported by other forces would be powerless. The importance of the forces maintained by the Royal Navy in the Far East was thus evident.

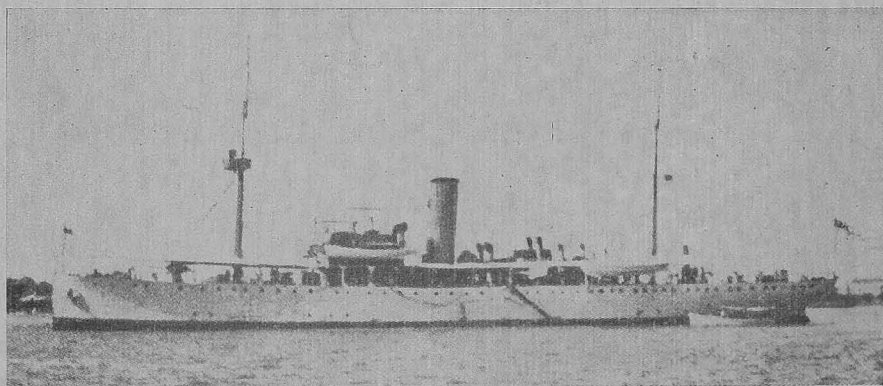
Abroad, the war activities centred around the Red Sea, the Persian Gulf, East Africa, Burma and the South-East Asian waters and the bases were Aden and Perim for the Red Sea and the Persian Gulf areas and Rangoon, Trincomalee, Colombo and Singapore for the Arakan Coast and the Malayan waters.

First Assignments

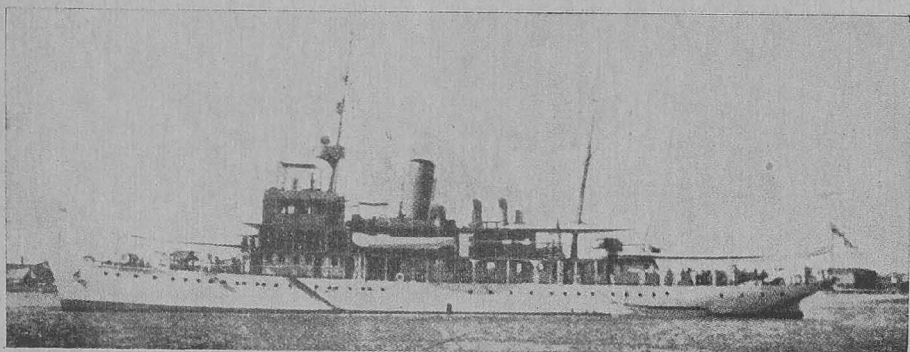
India's naval forces were, in accordance with the Chatfield Committee's recommendations, required to play their part in remote areas where the safety of India's bastions was concerned. In accordance with the revised conception of India's defence role as



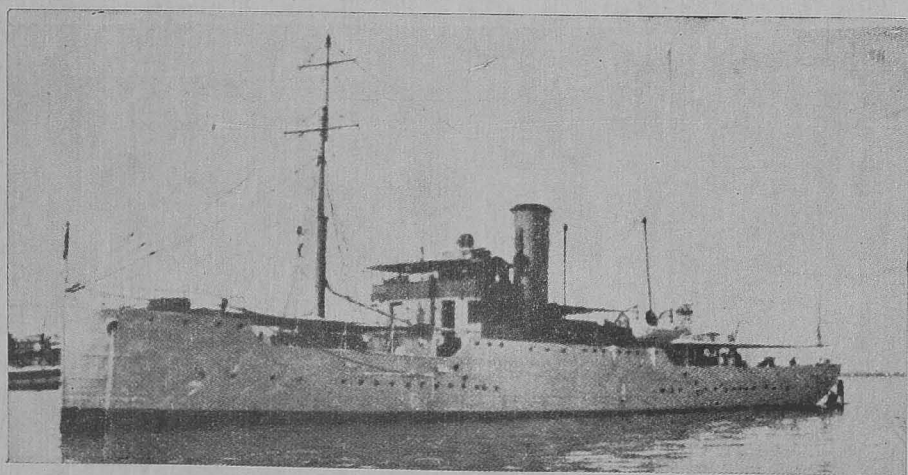
H.M.I.S. *Hindustan*



H.M.I.S. *Cornwallis*



H.M.I.S. *Lawrence*



H.M.I.S. *Pathan*

devised by that Committee, close liaison was at all times maintained with the Naval Commander-in-Chief, East Indies, and at the outbreak of war five sloops of the R.I.N. were placed under his command for service in the Red Sea, Gulf of Aden and the Persian Gulf waters. These forces later played an important part in the operations against Italian East Africa and in the brief campaign in Iran.

On the outbreak of war with Germany, H.M.I.S. *Hindustan* (Commander G.V.G. Beamish, R.I.N.) in company with H.M.I.S. *Indus* (Commander E.G.G. Hunt, R.I.N.) left Bombay for their war stations and on 5 September 1939 joined the Persian Gulf Division of the East India Squadron under the Senior Naval Officer, Persian Gulf. The ships were employed in patrolling the Straits of Hormuz with the object of protecting British and Allied shipping in the Gulf, preventing the entry of hostile raiders and the escape of interned German ships from Iran.

H. M. I. Ships *Clive* (Commander H. P. Hughes Hallet, D.S.C., M.B.E., R.I.N.) and *Lawrence* (Lt. Cdr. F. W. King, R.I.N.) sailed on 3 September for their war stations at the Island of Masira off the north-east Arabian Coast where patrols were established. At the end of October 1939 both ships joined the Persian Gulf Division.

Owing to the necessity of keeping H.M.I.S. *Cornwallis* (Commander H. C. Beauchamp, R.I.N.) on the Bombay patrol, she did not sail for her war station in the Gulf of Aden until 24 September 1939 and arrived in Aden on 1 October where she was ordered to join the Perim Patrol.

H.M.I.S. *Indus*, after a short refit in Bombay, arrived in Aden on 7 February to reinforce the Perim Patrol. By the end of March 1940, she had steamed over 33,000 miles, and had investigated 435 British and foreign ships. Except for a short period in May when she returned to the Persian Gulf, the *Indus* took part in nearly all naval activities in the Red Sea.

For strengthening the local naval defence of India in accordance with the scheme outlined in the previous chapter, merchant ships were requisitioned at a very rapid rate and employed for local naval defence duties. The following ships were employed for local naval defence at the various parts in India on 10 October 1939 :—

Bombay	Karachi	Calcutta	Madras	Cochin
<i>Pathan</i>	<i>Ramdas</i>	<i>Investigator</i>	<i>Pansy</i>	<i>Ratnagiri</i>
<i>Madras</i>	<i>Bhadravati</i>			
<i>Hashemi</i>	<i>Haideri</i>	<i>Sandoway</i>	<i>Sandip</i>	<i>Hiravati</i>

Bombay	Calcutta	Madras	Cochin
<i>Rukmavati</i>			
<i>Sonavati</i>	<i>Selama</i>	<i>Sophie Marie</i>	<i>Prabavati</i>
<i>Padmavati</i>			
<i>Dipavati</i>			

More ships were added after their completion either at Bombay or Calcutta. Besides these local naval defence ships, the following ships were converted as armed merchant cruisers :—

Cathay Completed conversion as the first armed merchant cruiser on 10-10-1939 at Bombay.

Chakla Completed conversion as an armed boarding vessel on 21-10-1939 at Bombay.

<i>Ranchi</i>	Completed conversion	on 22-10-1939 at Bombay
<i>Juna</i>	„ „ as A.B.V.	on 24-10-1939 at Calcutta
<i>Antevnor</i>	„ „ as A.M.C.	on 28-10-1939 „ „
<i>Cheshire</i>	„ „	on 10-11-1939 „ „
<i>Maloja</i>	„ „	on 25-11-1939 „ Bombay
<i>Ranpura</i>	„ „	on 6-12-1939 „ Calcutta
<i>Carthage</i>	„ „	on 23-12-1939 „ „
<i>Hector</i>	„ „	on 21-12-1939 „ Bombay

Of these *Cheshire*, *Ranpura* and *Carthage* were sent to Colombo and *Chakla* to Aden.

All these war preparations and the early assignments for the R.I.N. were not without some justification. As early as 4 September 1939 the Intelligence Centre, Bombay received the first report from a War Watching Station when Bimlipatam reported a submarine in the vicinity. During the same week three German merchantships (*Bram Fels*, *Drachen Fels* and *Ehren Fels*) were known to be in Marmagoa and five German ships in the Persian Gulf and eight at Massawa. Again on 21 October 1939 nine German ships were reported at Massawa. There was a warning from the Admiralty on 3 November 1939 of potential minelaying. The Admiralty decided that the re-arming of the *Indus* and the *Hindustan* should be deferred but that they should be fitted as soon as possible with Asdic. On 9 November 1939 warning was received of the approach of the German pocket battleship *Admiral Scheer* in the Indian Ocean. By 8 December 1939 the total number of submarines reported round the coast of India was to the tune of 40, but none of these reports had been substantiated. The German radio announced giving details of convoys leaving Bombay within twelve hours after their departure.

Loss of "Pathan"

It has been mentioned earlier that H.M.I.S. *Pathan* was employed in the local naval defence duties at Bombay after the declaration of war. Before the hostilities started, it was a tender to the training establishments at Bombay. Its displacement was 695 tons; S.H.P. 5,500; Guns : one 4" and two 12-Pdr. After the retubing of her boilers she resumed her duties off the coast of Bombay. On 23 May 1940 she shadowed the Italian *Comte Verde* into the harbour as a precaution against mining. She did not live long and was lost on 23 June 1940, while on anti-submarine patrol in the vicinity of Bombay harbour (just outside the swept channel at a distance of 26 miles from the harbour).²

Except for this incident which added to the general misfortunes of the Allies at the time, the stage was now well set for operations by the Royal Indian Naval ships in the Arabian Sea, Red Sea, Gulf of Aden and the Persian Gulf.

² There is some controversy about the loss of this ship. According to the official version, the ship was struck by enemy torpedo or mine. But some thought that it was due to the explosion of the ship's depth charges.

The casualties were two officers killed including the Commanding Officer Lt. Cdr. K. Durtson, R.I.N., one officer seriously injured, three ratings killed (one more rating died from injuries later) and sixteen ratings were injured.

CHAPTER IV

Operations in the Red Sea

General Patrol Duties

During the first six months of the war the East Indies Command was chiefly occupied with routine patrols and the escort of troop convoys. From March 1941, owing to Italy's attitude, a policy of moving naval forces from China and the East Indies to the Eastern Mediterranean¹ was pursued and six submarines from Hong Kong and four from the East Indies were ordered to proceed there. The *Abingdon* and 2nd Minesweeping Flotilla also passed through in April from Singapore to the Mediterranean. On 4 April the Admiralty announced their intention to form a Red Sea Force.

The four sloops of the R.I.N. the *Hindustan*, the *Indus*, the *Clive* and the *Cornwallis* and the auxiliary vessels the *Netravati*, the *Parvati* and the *Ratnagiri* based at Aden, formed part of the Arabian Bengal Ceylon Escort Force (ABCEF) under the operational control of the Commander-in-Chief, Eastern Forces. These ships were later joined by H.M.I.S. *Lawrence*, *Sutlej* and *Jumna*. All these were employed at different periods mostly on general patrol duties in the Aden, Perim and Persian Gulf areas and on convoy escort duties in the Red Sea.

During the month of March 1940 the *Lawrence*, the *Hindustan* and the *Clive* were employed on the Persian Gulf patrol. The *Hindustan* and the *Lawrence* assisted the Royal Air Force in the search for the missing Imperial Airways Liner, the *Hannibal* lost near Jask. The search was fruitless. The *Indus* and the *Cornwallis* were employed on the Perim patrol. During April the escort vessels continued their operations in the Persian Gulf and off Aden. In May 1940 the sloops continued to patrol the Persian Gulf and Perim stations. The *Cornwallis* formed part of the Red Sea Force.

The little island of Perim in the narrow Straits of Bab-el-Mandeb is strategically situated at the junction of the Red Sea and the Gulf of Aden. All traffic between the Indian Ocean and the Red Sea can be controlled from this point. The Perim control was established soon after the outbreak of war with Germany. German merchant

¹ East Indies War Diary T.S.D. 4536/40.

RED SEA AND THE GULF OF ADEN

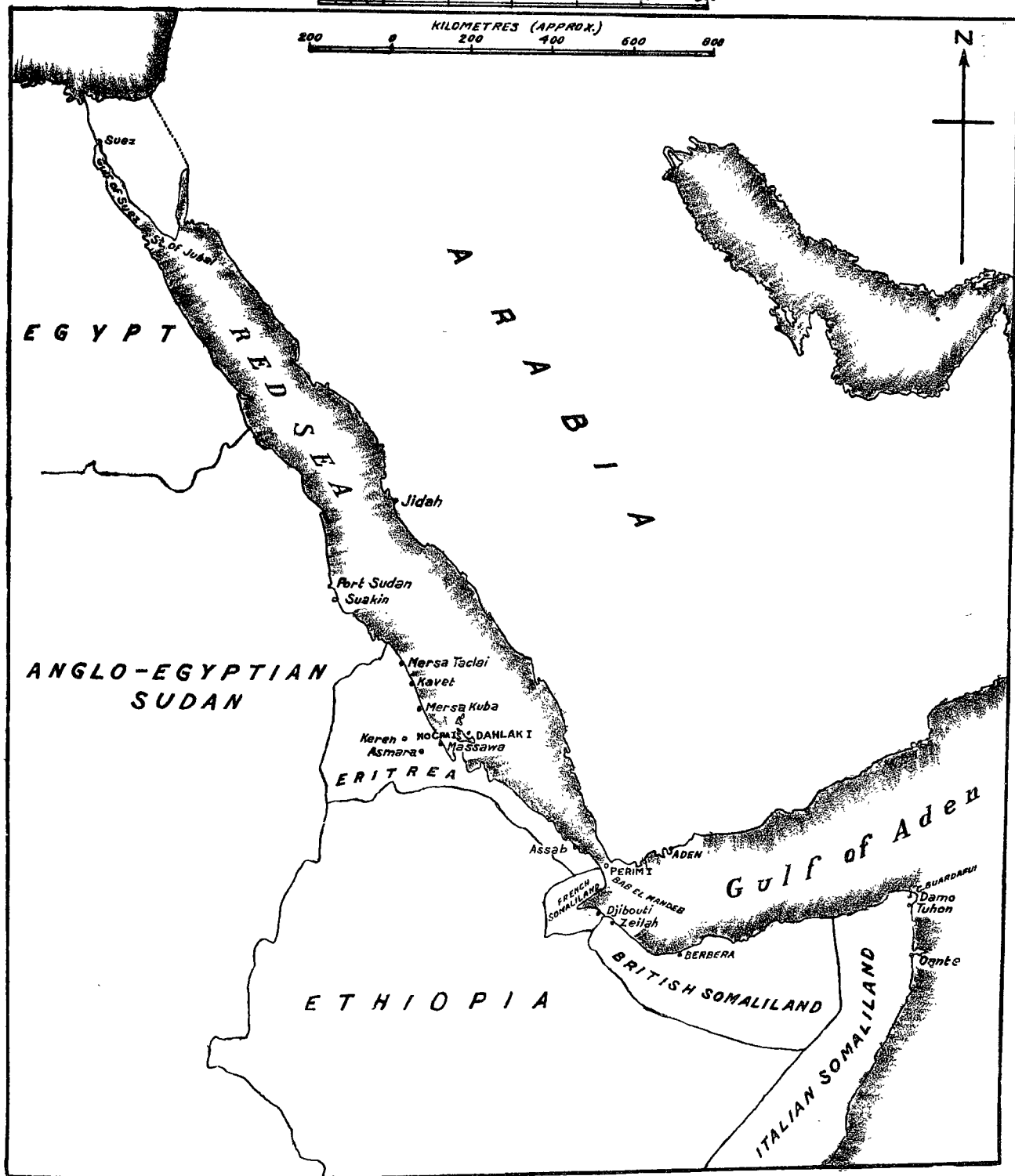
(1939 - 1941)

SCALE OF MILES (APPROX.)

100 200 300 400 500

KILOMETRES (APPROX.)

200 400 600 800



ships had taken refuge in the Red Sea ports of Massawa and Assab. Besides keeping vigilant watch to prevent their escape into the Gulf of Aden and the Indian Ocean, all ships passing to and fro through the Straits were examined and identified.

Italy's Entry into War

By the end of May 1940, Italy's intention to enter war as a belligerent had become clear. The British Naval Attache at Rome reported on 2 June 1940 that Naples appeared to have been practically in military control since 23 May for the transport of troops and stores, and that preparations for war were continuing. Italy announced that from June 6 the waters within 12 miles of her coasts and those of Albania and the Italian colonies would be dangerous to navigation. There were indications also that Italian merchant ships were receiving instructions to proceed to neutral ports. At 1630 on 10 June, the British and French Ambassadors in Rome were informed by Count Ciano that from 11 June, Italy considered herself at war. News of the declaration reached the Mediterranean Fleet at 1900. The Admiralty order to commence hostilities was not received in the Fleet until 2208. But preparations were proceeding meanwhile. The Fleet went to two hours' notice.

As soon as Mussolini's intention to join his Axis partner was clear beyond doubt, the Red Sea, then still a part of the Command of Vice Admiral R. Leatham, the Commander-in-Chief, East Indies, assumed great importance and the threat of the Italian destroyers and submarines, based at Massawa on the flank of our convoy route to Suez, demanded immediate counter measures. Accordingly, on 24 May the Red Sea was closed to shipping until convoys had been formed and the anti-aircraft cruiser *Carlyle*, three sloops and a division of destroyers passed southward through the Suez Canal to provide the necessary escorts. As it happened, the Italian threat to this route proved more theoretical than real; the submarines were easily dealt with—of the eight originally based east of Suez, no less than three were destroyed and one was captured intact in June; the destroyers, of which there were initially nine, never interfered effectively with the steady progress of our convoys, and bombing by Italian aircraft was equally devoid of results. The Chiefs of Staff, who at the end of 1939 had stated that "we might expect that even in the early stages (of a war with Italy), it would be possible to pass occasional convoys through the Red Sea," were proved correct in their somewhat guarded forecast.²

² *War At Sea 1939-1945* by Captain S.W. Roskill, D.S.C., R.N., Vol. I.

When the outbreak of hostilities with Italy was imminent in June 1940, H.M.I.S. *Clive* (Commander Inigo Jones, R.I.N.) was ordered to re-inforce the Red Sea Force. She reached Aden from the Persian Gulf on 12 June, 1940, a day after the war was declared. After fuelling, the *Clive* immediately joined the Aden patrol and later carried ammunition from Aden which was urgently required at Djibouti. After carrying a consignment of silver to Jeddah, the *Clive* was ordered to proceed to Suez to join Force "S" for convoy escort duties. Force "S" consisted of H.M.I.S. *Clive* and H.M.S. *Grimsby*. The *Clive* escorted the first south bound convoy in early July 1940, meeting the north-bound convoy from Aden in the latitude of Port Sudan where escorts were changed—Force "S" returning to Suez with the north-bound ships. To meet the danger of Italian mining in the Gulf of Suez, Force "S", in addition to escorting, was required to carry out minesweeping operations in the Straits of Jubal prior to the arrival of convoys in this area. The *Clive* had a near miss during a bombing raid on Suez.

Actually two Italian ships S.S. *Barbara* and *Bronte* were lying off the Khor-Musa river, and when hostilities broke out, they managed in spite of vigilance, to move up into territorial waters. It was certain now that Italian submarines would try to interfere with the trade routes in the Indian Ocean. In fact, early in July an Italian submarine was reported at the northern end of the Gulf. At once the *Indus* proceeded to the area but could not contact her. It was H.M.S. *Falmouth* that accounted for the submarine and sank it.

Evacuation of Berbera

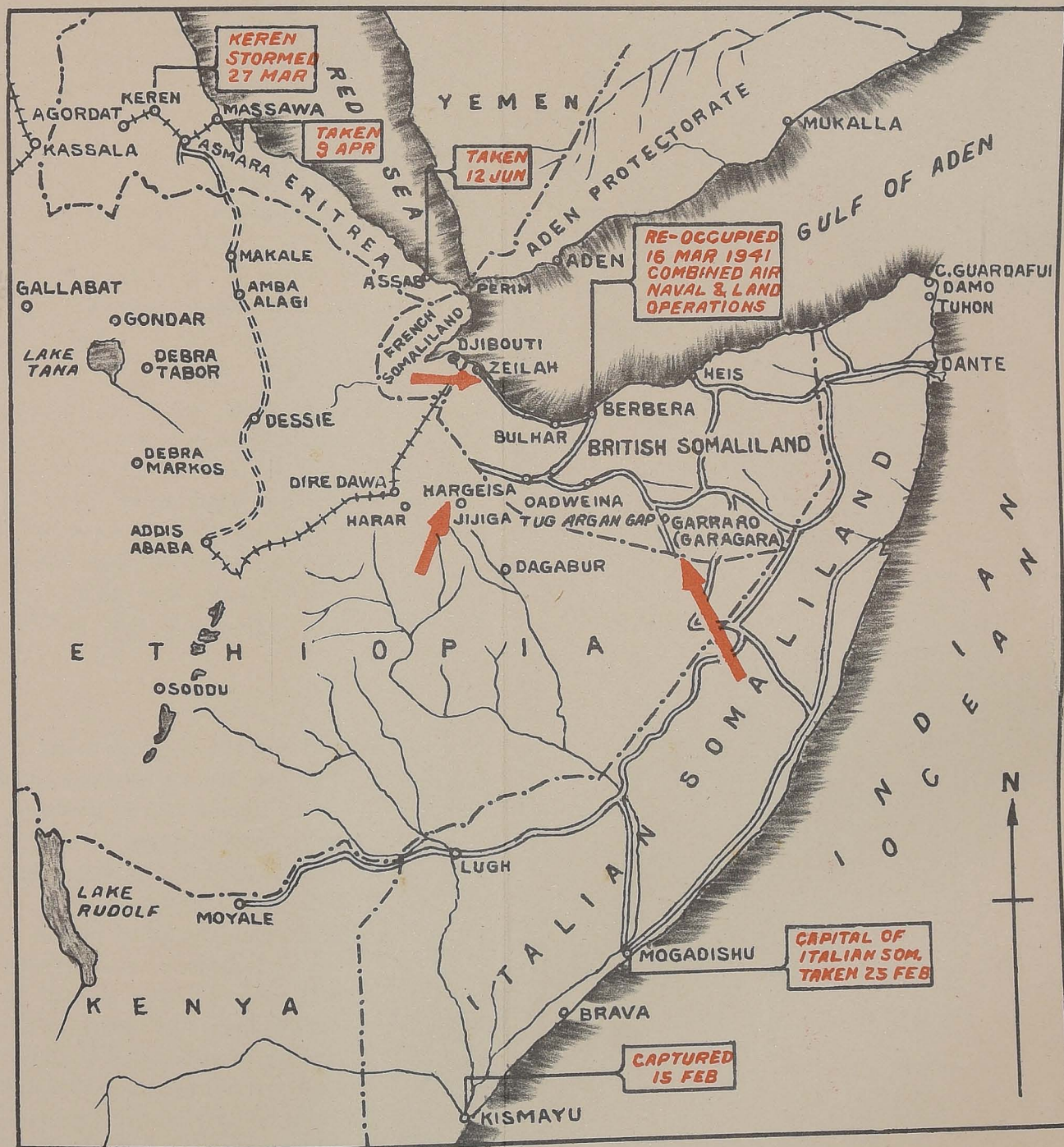
Before the formation of the Red Sea Force in April 1940, it had been decided in principle that British Somaliland should be held. At that time, the military forces there consisted of 650 Somali troops of the Somaliland Camel Corps. Reinforcement began in May when H.M.A.S. *Hobart* went to Berbera to superintend the disembarkation from the troopship *Karanja* (9,891 tons) of a battalion of the 2nd King's African Rifles. There were no further reinforcements until the end of June, and the general situation was altered by the collapse of France in that month. British military plans had been based on close collaboration with strong forces in French Somaliland; but the collapse of the French colony followed that of France. Early in July, however, Colonel Chater, Commander of the troops in Somaliland, thought that the British position would not be untenable under certain conditions, one being that naval support was forthcoming on the coast west of Berbera.

OPERATIONS IN THE MIDDLE EAST

SHOWING EVACUATION OF BERBERA AND THE ITALIAN INVASION OF SOMALILAND

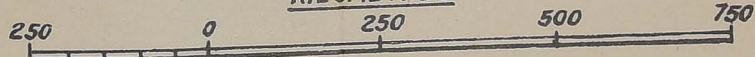
AUGUST 1940

SCALE OF MILES



ADVANCE OF ITALIAN FORCES...

KILOMETRES



From the French Somaliland border in the north-west the British coast-line extended eastwards, some 400 miles to the frontier of Italian Somaliland. Just inside the western boundary was the small port of Zeila. Some hundred miles farther east, and almost opposite Aden, 150 miles distant from it across the Gulf, lay Berbera, the seat of government, and a practically undeveloped port whose normal trade was catered for by dhows and a small weekly steamer. With only two small piers devoid of lifting gear and capable only of accommodating lighters or ships' boats at between half and full tide, the port was ill adapted for the rapid handling of troops and equipment. The position was aggravated in the summer months by the 'Kharif', a strong south-west wind often reaching gale force, which blows for approximately twelve hours every night from June to September, making boat work hazardous, if not impossible in the harbour.

In July 1940, information was received of general mobilisation of the Italian army and navy in Italian East Africa, and on the orders of the Colonial Office, the evacuation of all civilians from Aden and of British Indians from Berbera and Djibouti in British Somaliland was proceeded with.

The Italian invasion of Somaliland began on 3 August when three columns moved on Oadweina, Hargeisa and Garagara. The main attack was from Abyssinia across the mountains towards the coastal plains and Berbera. The British defence line was at Tug Argan Gap, forty miles or so inland from the port. Next day, the small port of Zeila was occupied by the Italians without opposition. They also captured a dhow and put a prize crew on board. Taking the prize to sea, no doubt for exhibition at Assab or some other Italian port in Eritrea, they were caught in a sandstorm, which evidently disturbed the armed guard much more than their captives, who were able to take advantage of the situation, threw the guards overboard and on the evening of 8 August sailed the dhow into Aden. On 7 August, the Black Watch, which had been standing by in Aden, were conveyed to Berbera in one of H.M. Ships. Next day there were three enemy air raids on Berbera. The *Hobart* (Australian Cruiser), the *Auckland* (sloop), the *Amber* (A/S trawler) and other vessels were in harbour; very minor damage by splinters was caused to the *Hobart* and the *Chakdina*. A few days later H.M.I.S. *Hindustan* (Commander G.V.G. Beamish, R.I.N.) landed three more 3-pdr. guns for similar service. H.M.I.S. *Hindustan* was present throughout the evacuation of Berbera. In fact her guns covered the withdrawal effectively. The *Hobart's* 3-pdr. and detachment were lost on 15 August. The presence of the ships of

the Royal Australian and Indian Navies and their conduct were of the utmost value to the morale of the garrison³. Ships in the Gulf of Aden and off Berbera were attacked by Italian aircraft on 12, 14, 15, 16 and 30 August. Only the *Hobart* was slightly damaged by splinters in the attack on 15 August.

At 1054 on 15 August, the Commander-in-Chief East Indies reported that the Commander-in-Chief Middle East, had ordered the evacuation of the Somaliland Force. The projected movement of a battalion to Berbera in H.M.S. *Neptune*, leaving Suez on 16 August was therefore cancelled. The Force retired on Berbera on the 16th and evacuation was begun immediately. The *Chakdina* left that day for Aden with 1,100 evacuees including about 300 Abyssinian women and children. At 1040 on the 17th, H.M.S. *Ceres* patrolling off the coast, engaged an Italian column 40 miles west of Berbera and stopped its advance. The General Staff embarked in *Hobart* at 1900. During the night of 18 August, the *Hobart* embarked the remaining personnel and demolition parties and sailed on the 19th after destroying the Government offices. The *Shoreham*, the *Derby* and the *Protector* were also employed. The *Hobart* was attacked by three aircraft on the 18th but suffered no injury. On the same day, the *Caledon* and the *Kandahar* bombarded Bulhar, Berbera roads. The tug *Queen* was lost during the embarkation. The numbers landed were 5,690 combatants, 1,226 civilians and 184 casualties.⁴ Another 40 civilians were evacuated from Heis by the Principal Sea Transport Officer. A proposed bombardment of Zeila was deferred on 29 August by the Commander-in-Chief East Indies on the ground that there were probably more British Somalis in the place than Italians.

The evacuation was regretted chiefly for its political effect on the peoples of the Middle East as it served to enhance Italian military prestige. The loss of Somaliland, however, did not affect the overall situation. It rather relieved British forces of a commitment, and they could be employed to greater advantage elsewhere.

Assignment for and Exploits of R.I.N. Ships

In September 1940 the *Indus* was attacked by some high level bombers but as the bombs missed the target, she remained unhurt. Next month, she left Aden in command of the escort and twenty-three merchant ships to join a north-bound convoy going through the Red Sea. Unfortunately she was soon detached for

³ Dispatch by Commander-in-chief Middle East (M 020366/40)

⁴ C-in-C East Indies Signal 0514/23.

patrol duties and thus deprived of the chance of taking part in a successful action which ensued later.

During December 1940, the Commander-in-Chief, East Indies requested the loan of three anti-submarine patrol vessels from the Local Defence Flotillas in India for service in the Red Sea. Owing to the urgency of this requirement, orders were despatched to H.M.I. Ships *Netravati*, *Parvati* and *Ratnagiri* based at Bombay, Calcutta and Cochin respectively to prepare for immediate service abroad. The ships completed degaussing and left India before the end of December 1940. H.M.I.S. *Netravati* (Lieut. D. A. McDonald, R.I.N.) was the first to sail on 20 December 1940 followed by H.M.I.S. *Ratnagiri* (Lieut S.G. Karmarkar, R.I.N.R., the first Indian Officer to command a ship) on 24 December 1940 and H.M.I.S. *Parvati* (Lieut H.M.S. Choudri, R.I.N.) on 31 December 1940.

The last ship proceeded first to the Persian Gulf to relieve H.M.S. *Seabelle* urgently in need of a refit in Bombay. The *Parvati* was employed in patrolling the Straits of Hormuz based on Khor Kuwai and under the orders of the Senior Naval Officer, Persian Gulf. On relief, she proceeded to join the Red Sea Force and arrived at Aden on 5 February 1941. H.M.I.S. *Netravati* and *Parvati* were employed on the Perim and Aden patrol during January and February 1941. The *Parvati* escaped narrowly on one occasion leaving Aden harbour which was subjected to air attack by the Italians. Three bombs fell one after another within one and a half cables of the *Parvati* but luckily no damage was sustained. Soon after the *Ratnagiri's* arrival in the Red Sea she was ordered to proceed to Port Sudan where she was based till the fall of Massawa.

Operations "Begum" and "Breach" (Italian Somaliland)

In January 1941, British Forces began simultaneous advances from the Sudan and Kenya into Eritrea, Abyssinia and Italian Somaliland, and by the summer had captured these territories and virtually disposed of the Italian East African Empire, although the process of mopping up continued until the autumn. The armies advanced from several directions, against Kassala, Keren, and Amba Alagi in the north; Harar and Addis Ababa in the centre; Kismayu, Brava and Mogadishu in the south. Naval control of both ends of the Red Sea and the Indian Ocean facilitated the progress of the troops by isolating those areas and preventing any large supplies of oil and munitions reaching the Italians. Naval forces co-operated in the attacks on the ports and coastal sectors.

A conference was held at Mombasa on 1 January between naval, army and air representatives to co-ordinate plans for operation "Begum" for the denial of supplies to the Italians during the advance of the army against Italian Somaliland. The R.N. cruisers *Shropshire*, *Ceres*, and *Colombo* were ordered there for this purpose. It was decided to destroy any ships arriving at the port of Kismayu, though the chief need was to capture that port. In the light of later events and information, it was subsequently decided to mine Mogadishu instead.

The aircraft carrier *Formidable* which was on her way to the Mediterranean via the Cape, was employed for this purpose, escorted by the cruiser *Hawkins* (Force K) and the operation "Breach" was carried out on 2 February. The striking forces, after minelaying, acted independently, sighted the town at 1800 and found their targets without difficulty. Nine Albacore aircraft bombed the Ordnance Depot, buildings at the airfield, the railway station, petrol tanks at Ras Sip, the customs shed and other objectives. There was little opposition and all aircraft returned.

Landing at Mersa Taclai

During the advance of the Allied land forces from the Sudan into Eritrea, the Royal Indian Navy performed a vitally important role. Indian ships co-operated by maintaining by sea the supply base of an Indian army force which surprised the Italians by pushing in from the coast on to the left flank of the Italian position at Keren. Indian, British, Free French and African troops were transported by R.I.N. vessels to Mersa Taclai, an improvised operational base on the coast of Eritrea. They helped to open the coast road leading down from Port Sudan to Massawa.

With the success of the land operations against the Italians, the role of the naval forces included an increasing number of offensive operations, mainly in conjunction with the army against Italian ports and coastal position. H.M.I.S. *Ratnagiri* set off by assisting landing at Mersa Taclai in February 1941, a difficult task made more hazardous due to the existence of underwater reefs. At this spot, H.M.I.S. *Ratnagiri* was first able to land 750 Free French troops under risky conditions and later numbers of Indian, British and African troops.⁵

Landing of Chad Battalion at Mersa Taclai:—

H.M.I.S. *Ratnagiri* prepared for troop transport and sea at 1600 on 11 February 1941. At 1800 nine officers and 49 troops were

⁵ Appendix VII gives the names of *Ratnagiri's* Officers.

embarked. The next day she sailed with Capt. Magliveras as pilot, for Suakin, where she arrived at 0930 on the 12th and disembarked two officers and 30 other ranks. At 0615 on the 14th, preceded by the minesweeper H.M.S. *Elkebir*, she departed from Suakin harbour. On her arrival at Khor Nawarat at 1430 she waited outside the channel for the arrival of *Elkebir* and in company with her she proceeded at 1550 to anchor in the position $18^{\circ} 14' 28''$ N, $38^{\circ} 18'$ E at 1550. At 0540 on the 15th, *Elkebir* left the anchorage and at 0555 ran aground in position $18^{\circ} 15' 38''$ N, $38^{\circ} 19' 48''$ E. The *Ratnagiri* decided to weigh and proceed independently since at that time it was impossible to ascertain how long *Elkebir* would remain aground.

After leaving the anchorage, at 0630 an explosion on Black Rock was witnessed. The source of the explosion was uncertain but it was assumed to have been caused by an air attack although no planes were visible. The matter was reported by wireless to the naval officer-in-charge, Port Sudan and the *Ratnagiri* proceeded at best speed.

At 1200 the *Ratnagiri* sighted one bonfire at Mersa Taclai and in accordance with the instructions, she approached the anchorage. At 1235 she anchored in four fathoms of water Light house bearing 172° , 2 miles. All the boats were lowered at 1250 and the first boat left for the shore at 1300. By approximately 1800 some 600 troops had been landed and off loading of Royal Air Force and Free French Force stores commenced. It was greatly facilitated by the arrival of a dhow from its anchorage near the jetty and some 800 tons of petrol were loaded in it. A larger dhow then arrived alongside and the remainder of the stores and ammunition were placed in it, the boats running continuously with the smaller cases of ammunition stores and the balance of petrol. At 2359 the remainder of the troops who had formed the ship's working party, began to disembark and were all landed by 0045 on the 16th. After the R.A.F. dummy planes had been off loaded at 0100, *Flamingo* whalers and power boats returned to their ship. After securing her boats, the *Ratnagiri* weighed anchor and proceeded in company with the *Elkebir* at 0210.

In all, the *Ratnagiri* transported 20 officers, 48 non-commissioned officers, 695 Somalit roops with full equipment, 32 tons of ammunition and stores, 1,800 gallons of drinking water, and 12 tons of petrol for the Royal Air Force. At Taclai she embarked one medical officer, 3 wounded (Sussex regiment), 9 Italian prisoners and three armed guards.

At 1430 on 18 February 1941 the undernoted troops and stores embarked on the *Ratnagiri* alongside No. 3 Berth, Main Quay, Port Sudan:—

	<i>British Officers</i>	<i>Viceroy's Com. Off- icers/W. Officers</i>	<i>BORs/IORs</i>	<i>Followers</i>
4/16 Punjab	9	9	369	38
1st Royal Sussex	3	1	118	—
55th Supply Depot	1	1	23	—
7th Indian Supply Brigade	—	—	2	—
Interpreter	—	—	1	—
Total	13	11	513	38

Grand Total 575

Stores, Rations etc. approximately 5 tons.

At 1730 the ship was prepared for sea and at 1745 she proceeded out of harbour to Wingate Reef where at 1815 she took station astern of the escort H.M.S. *Flamingo*. They arrived off Mersa Taclai at 1245 and proceeded close in shore. At 1302 the first boat, which had previously been filled with stores and loaded with troops left for the jetty, closely followed by the other three life boats. At 1315 all available boats from the *Flamingo* and the *Ratnagiri* carried troops from the ship to shore. The disembarkation was completed by 1627. The *Ratnagiri* left Mersa Taclai in company with H.M.S. *Flamingo*.

The landing on this occasion was very quickly effected owing to the comparatively small amount of stores, rations, equipment etc. Another advantage was that the weather conditions permitted of both gangways being employed and all boats were continuously engaged.

A third landing at Mersa Taclai took place on 28 February 1941. The *Ratnagiri* left Port Sudan at 1600 on 24 February and arrived at Suakin at 0950 where her Commanding Officer along with Lieut. Commander Storey, R.N.R. proceeded to the camp of the French Foreign Legion near Suakin and made necessary arrangements for embarkation. At 0915 with the assistance of 8 requisitioned shore boats, loading of stores, rations etc. commenced. All troops were embarked and the ship prepared for sea at 1900. After some delay in loading additional stores of three tons, the ship weighed anchor and proceeded out of Suakin harbour. Anchor-

ing for the night off Khor Nowarahat she reached Mersa Taclai at 1140. The off loading of stores and the disembarkation of troops were completed at 1755 with ship's boats and the ship proceeded to sea.

In all, the *Ratnagiri* transported on 28 February the following men and stores :—

	<i>F. F. Legion</i>	<i>Indian Supply</i>
Officers	24	1
NCOs	85	—
Troops	523	17
Followers	6	—
Total	638	18

Grand Total 656

Stores approximately 16 tons.

At Mersa Taclai she embarked for passage to Port Sudan :—

British Staff Officers	2
Doctor	1
Medical	2
Wounded Br. Other Ranks	16
Wounded French Foreign	18
Italian prisoners of War	3 Officers
European other ranks	8
Native other ranks	10 (5 wounded)

The last landing at Mersa Taclai supported by the *Ratnagiri* was on 4 April 1941 when the Operation "Atmosphere" was being mounted to capture Massawa from the Italians. Having embarked 9 officers and 288 British, Indian and French other ranks and the Beach Party from H.M.S. *Capetown*, the *Ratnagiri* proceeded to Mersa Taclai arriving there at 0650 and joined H.M.S. *Sagitta*. After the *Sagitta* had embarked various military personnel and 6 sambuks had been warped out to positions of astern of the towed pontoons, they proceeded to sea escorting a convoy at 0830 for Kuba, arriving there at 1310 on the 5th. The remainder of the escort Force "G" consisting of H.M.S. *Capetown* and H.M.I.S. *Indus* had joined the convoy at about 1000 on the 5th.

Reoccupation of Berbera

During the evacuation of the garrison of British Somaliland in August 1940, ships of the Royal Indian Navy had actively co-operated with the Royal Navy. On 16 March 1941 occurred the

first combined landing operation in which units of the Indian army and the Royal Indian Navy had ever taken part—the reoccupation of Berbera.

It was known that the Italians had removed most of their garrison from British Somaliland owing to the threat from the Allied forces advancing from Mogadishu but there were still at least 2,000 men left in Berbera, while there was a considerable number of bomber and fighter aircraft at Diredawa. Hence it was decided to occupy Berbera for which a plan was prepared in which the Royal Indian Navy was assigned a prominent part. The plan was given the code-name “Appearance”.

Operation “Appearance”

The object was to re-occupy Berbera and to establish a bridge-head; and subsequently to use Berbera as a supply base for 15,000 troops.

The plan for the navy consisted of:—

(i) Embarking a military striking force about 3,000 strong with equipment, including 150 motor transport in eight H.M. Ships and military training transport.

(ii) Transporting the striking force from Aden to Berbera, a distance of 140 miles, and the ships also towing tugs and lighters required by the expedition.

(iii) To land the striking force in face of hostile opposition on open beaches inside the reefs east and west of Berbera. The landing to be covered by naval bombardment.

(iv) To capture the town and seize land equipment.

Naval Aspects Of Plan

There were several Naval uncertainties about this plan, viz:—

(i) The possibility of the tows breaking adrift on the trip across the Gulf of Aden and thereby holding up the striking force and the whole operation.

(ii) The difficulty of locating Berbera in the event of poor visibility, and the dangers of approaching a featureless, unlighted and virtually uncharted coast at night.

(iii) The difficulty of locating the gaps in the reef through which the tows would pass to the beaches.

(iv) Doubt as to the landing facilities for motor transport with improvised piers either on the beaches or inside the harbour.

The only seaward reconnaissances available consisted of air photographs, which navigationally were incomplete. It was however decided to accept the risks involved, and Zero Hour was fixed at 0300 on 16 March.

The following ships comprised the attacking force, which was termed Force D :—

H.M. ships *Glasgow*, *Caledon*, *Kandahar*, *Chantala* and *Chakdina* and H.M.I. ships *Parvati* and *Netravati*.

Passage from Aden to Berbera

The expedition was to cross in two parts.

First Part

H.M.S. *Kandahar*, *Chantala*, *Chakdina*, H.M.I.S. *Netravati*, *Parvati* and S. S. *Beaconsfield* and *Tuna*. In two of the above were to be three tugs and six lighters, two of the latter comprising the M.T. landing pier. All ships carried troops.

Second Part

H.M. ships *Glasgow*, *Caledon*, *Kingston* and M.L. 109, all with troops.

The first part left Aden at 2245 on 14 March and was quickly in trouble with tugs breaking adrift and wires round screws, when only ten miles from Aden. In order to avoid postponing the operation the plan was modified. The *Kandahar* was instructed to turn over all tugs and lighters to S.S. *Beaconsfield* and *Tuna* and to push on with H.M. Ships so as to arrive at the rendezvous (10 miles north of Berbera Light) at 0100 on the 16th as arranged. *Shoreham* was sent from Aden to assist *Beaconsfield* and *Tuna*. This reorganisation was completed by 1530 on 15 March.

The second part left Aden at 1630 on 15 March and overtook the *Kandahar* with troop convoy at 2330 and in company reached the rendezvous as arranged. It had been hoped to sight *Shoreham* with transport convoy, but they had been set 7 miles to the westward.

At 0100 on 16 March on arrival at the rendezvous 10 miles north of Berbera Light the position was as follows:—

(i) *Troop Convoy*: *Glasgow* (Senior officer, Force "D") in company with H.M. ships *Caledon*, *Chantala*, *Chakdina*, H.M.I. ships *Netravati*, *Parvati* and M.L. 109. The ships were to land their troops (1/2 and 3/15 Punjab) at Main Beach, 2 miles west of Berbera Light,

under cover of the *Glasgow's* bombardment. Also in company were the *Kandahar* and the *Kingston*. The latter had Force G (R) on board, a Commando of about 200 (mostly Somalis). They were to land on the subsidiary beach east of Berbera under cover of the *Kandahar's* bombardment. Speed of advance was to be 12 knots.

(ii) *Transport Convoy* : The *Shoreham*, *Beaconsfield*, *Tuna* with three tugs and six lighters in tow about half-way across the Gulf of Aden, speed of advance 6 knots.

At 0101 on 16 March the *Glasgow*, *Kandahar*, *Kingston* and M.L. 109 went ahead at 20 knots to make Berbera Light and then locate the gap through the coastal reefs abreast their respective beaches. The *Caledon* was left with the *Chantala*, *Chakdina*, *Netravati* and *Parvati* with instructions to arrive off the west beach at 0230 and anchor near the *Glasgow* who would show a steady red light to seaward. During the approach, a number of lights were observed ashore. These were certainly motor transport on the Hargeisa Road, bound for Berbera.

At 0203 on the 16th, Berbera Light House was sighted, bearing 186° distant 3 miles. The *Kandahar* and the *Kingston* then parted company, and proceeded to the beach east of the town, the *Glasgow* stopped and hoisted out the motor boat and skiff in which Commander Vernon went ahead to locate the gap in the reef abreast the western beach. Coast was approached with caution as the 100-fathom line was very close to the reefs. Considerable difficulty was experienced in finding the gap in the reef opposite the western beach and resulted in a delay of 63 minutes in landing the first tows. On the other hand, the *Kandahar* and *Kingston* found their gap in the reef at the eastern beach at 0300 although air photographs indicated this to be the more intricate of the two. This delay caused concern to Colonel Pollock and Captain Hickling (S.O.*Glasgow*) as the possibility of an opposed daylight landing was not welcome. Meanwhile the landing at the eastern beach timed for 0330 on 16 March was held up.

At 0326, a Somali fisherman in a canoe came alongside the *Glasgow*. He reported that the Italians were still in the town although some had left by lorry during the night. Some Italians were in the vicinity of the light house. This Somali was then sent to locate the gap in the reefs which actually was discovered by commander Vernon at 0358.

At 0413 the signal "Land, follow *Glasgow's* boats" was made. Four minutes later the *Glasgow* bombarded the main beach with 4"

high explosive and pom-pom. The 4" fire was that used for E-boat attack, (*i.e.* half the shells bursting on impact, the other half bursting in the air 50 feet over the target). Firing ceased at 0420. The bombardment was effective and accurate. The *Kingston* received the order to land on the eastern beach at 0420. The *Kandahar* bombarded the beach from 0425 to 0435 with effect. Tows then proceeded into the eastern and western beaches. The success signal at the western beach was made at 0448, at the eastern beach at 0526.

While the troops were being disembarked hostile shells burst among the tows and the ships lying off. These were judged to come from four to six guns of about 4" calibre. Their flashes were observed, and concerted fire from 6", 4" and pom-poms effectually silenced them. There was also some Italian machine gun fire which was not effective. Fire from the *Glasgow* was directed principally on the trenches near the light house and trenches to the west of the aerodrome. The *Kandahar* concentrated on the trenches to the east of the native quarter. Fire from H.M. ships was reported to be most effective.

The main landing was carried out by the 2nd and 15th Punjab Regiment supported by naval vessels which bombarded Italian positions from the sea. The naval bombardment was replied to by guns and machine-guns firing at the boats conveying the troops ashore, but the ships soon dealt with that effectively. The 15th Punjab Regiment which was the first to land was carried by H.M.I.S. *Parvati* (Lieutenant H.M.S. Choudri, R.I.N.) which also towed a tug and barge for the landing. The ship was straddled by three four-inch shells, which fell close, but the landing was carried out without loss and faced very little opposition. The 2nd Punjab Regiment then landed, and advanced through the 15th Punjab Regiment towards the town, while at the same time some of the latter moved inland from the coast to try to cut the road.

All troops were landed well before daylight, and the advance on Berbera commenced. Little opposition was met with ashore, and the town was captured at 0920 on 16 March. The British and Indian troops suffered no casualties. Over 100 prisoners were taken. About 0533 next day some aircraft were heard. A blind barrage was fired and no further Italian aircraft were seen during the day.

The Air Force provided fighter protection at Berbera and reconnaissance of the roads approaching the town that day.

Third Part

By the time Berbera was captured, the Transport Convoy was in the offing. Tugs swept into the harbour with Oropesa sweeps, and by 1400 on 16 March all ships, tugs and lighters were in the harbour and unloading. It was as well that the latter had been delayed, otherwise they would only have been in the way. The special motor transport pier consisting of two lighters, which was designed by the Sea Transport Officer, Aden, Commander Vernon, was put in place at the spit and motor transport unloaded from the *Beaconsfield* by 1800. It was a praiseworthy achievement.

The army was well established at Berbera with adequate stores and rations, local water being available. There seemed to be little fear of counter-attack as air reconnaissance reported the surrounding country to be deserted. Naval protection was withdrawn on 18 March with the departure of the *Glasgow*. Air protection was asked for up to and including 20 March.

Both Shaad pier and customs pier were damaged but these were repaired with local resources. Sabotage of the power station and refrigerating plant was more extensive and assistance from Aden was required to restore these services. The water supply was about to be mined by the Abyssinians but the officer commanding troops frustrated their attempts. The aerodrome was mined and the air officer commanding was informed.

13 officers and 40 Non-Commissioned officers, Italian prisoners of war, were sent to Aden in H.M.I.S. *Parvati* on 16 March. As the hospital ship *Karapara* was not required, she left for Aden on 16 March.

Thus operation "Appearance" was brought to a successful conclusion. All had worked indefatigably and cheerfully despite arduous conditions to make it a success.

Capture of Massawa

The naval operations against Massawa, which took place at the same time as the attack down the coast from Asmara, were extremely hazardous. There are many islands and the entrance is through a series of narrow channels between coral reefs. All navigation marks had been removed and the channels were liberally sown with mines. A period of intensive minesweeping finally opened up a safe way into the port entailing exciting and sometimes very exacting work. The mines in some places were thick, while there was always the possibility of submarines and E-boats lurking among the islets. One of H.M.I.sloops had a narrow

escape when all her sweeps were destroyed after cutting several mines and she was forced to withdraw. Actually she was just about to come within range of a heavy coast defence battery anxiously waiting to open fire. Another sloop (*Indus*) stopped in the middle of a minefield and the captain was horrified to see a mine within four feet of the ship. The re-opening of this port afforded relief to the Army transport services which had to maintain supplies over 500 miles of railway and 250 miles of road.

Operations at Massawa by the aircraft carrier H.M.S. *Formidable* hastened its capture. On 13 February, fourteen aircraft from the *Formidable* on her way to the Mediterranean attacked Massawa (Operation COMPOSITION). Torpedo aircraft scored one probable hit on a ship at the jetty, where a submarine and supply ship had been reported. One merchant ship was sunk outside the northern harbour, and possibly a second. A bombing attack was made on destroyers in the main harbour, one being probably hit. There was strong opposition from Italian fighters and anti-aircraft guns and two aircraft did not return.

A further operation by aircraft from the *Formidable* at dawn on 21 February took the form of dive-bomb attack by seven Albacores. Two of them attacked destroyers in the southern anchorage, one being probably hit and one near missed. Four aircraft attacked destroyers at the main quay, and probably hit two of them. One aircraft bombed a submarine in the northern anchorage from 1,000 ft. All seven returned, bringing back useful information about the 35 or more merchant ships in the line.

The mining of the Suez Canal delayed the passage of the *Formidable* into the Mediterranean, and she was sent to Port Sudan to await clearance. Meantime, she was available for a third operation against Massawa. This took place shortly after dusk on 1 March when five Albacores attacked the northern harbour. Bombs were dropped on a small floating dock believed to contain a submarine. All the aircraft returned. On 5 March the Admiralty directed that in attacks on Massawa the floating dock should no longer be an objective, as it was hoped it might be of use to the Allies, and the same ruling was applied to merchant shipping as far as possible. On 10 March it was decided not to plant any mines at Massawa.

The conquest of Eritrea was virtually completed by the occupation of Massawa on 8 April. The fall of the port was facilitated by the establishment of an advanced base at Mersa Kuba (Opera-

tion ATMOSPHERE) by Force "G" consisting of the cruiser H.M.S. *Capetown*, the destroyers *Kingston*, *Parramatta*, sloop H.M.I.S. *Clive*, and H.M.I.S. *Ratnagiri* and *Sagita*.

Exploits of the Hindustan, the Indus and the Ratnagiri

The position of land operations in Eritrea prior to the naval advance on Massawa was as follows:—Keren had fallen on 27 March and British forces were advancing on Asmara and Massawa from the westward and their left flank reached the coast to the southward of Mersa Kuba where it was considered that a landing might be made unopposed. It was accepted that mines would be a probability in the north Massawa Channel and that coast defences would exist at Ras Harat, Harat Is., Dohul Is., and possibly Difneim Is. The intention was to establish an advance supply base in the vicinity of Mersa Kuba and to supply it by sea from Port Sudan and to move forward by sea supplies already at Mersa Taclai.

From 1 to 4 April *Parramatta* swept from Kavet to Kuba. No mines were encountered and this area was considered to be free from them. On 4 April the *Capetown* and *Indus* sailed as covering force to escort barges, tugs and naval craft from Mersa Taclai. On the 5th the advance took place arriving at Mersa Kuba at 1400 the same day. The force passed within range of Difneim Island. Information obtained later confirmed that the island was not defended but had small anti-aircraft guns and a wireless telecommunication station. On the 6th and 7th, the *Indus* and the *Parramatta* were employed in widening the swept channel. During the early hours of the 8th, an E-boat attack was made on the *Capetown* which was torpedoed. The *Indus* and the *Parramatta* joined to screen and tow her. As soon as the cruiser was safely in tow and on her way to Port Sudan, the *Indus* was ordered to take over command of the force at Kuba⁶. By day-light the left flank of the army making its final attack on Massawa was heavily engaged on the coast.

At night on the 8th and the 9th, the forces at Kuba were withdrawn to the northward as a precautionary measure. Wide arrangements were being made for a sweep south to Massawa. Naval Staff Officers were in Massawa by the 10th, and the ships at Kuba were waiting for any information of the minefields, which might be obtained. None was forthcoming and the position gradually

⁶ Reports of H.M.I.S. *Indus*. File No. 601/12252/H.

For detailed Account of land operations see C.I.S.H.S. publication *East African Campaign*.

became more critical as the road between Kuba and Massawa had become impassable owing to heavy rain. The land forces eventually reported that it was essential that a barge containing urgent stores at Kuba should be brought to Massawa by sea. Upon receipt of this report permission was received for the level forces to proceed.

On the 11th H.M.I.S. *Hindustan* arrived at Kuba. A suggested route to the eastward of Oreste Shoal was signalled by Naval Officer in charge Massawa and arrangements were made for H.M.I.S. *Indus* to sweep a channel with H.M.I.S. *Ratnagiri* acting as dan layer for the barge towed by a tug. On the 13th, H.M.I.S. *Indus* set out towards Massawa with the *Parramatta* in support. Minefields were passed through and mines swept up to the west and south-west of Harat island and progress was maintained until a position to the north-east of Oreste Shoal was reached. At this point the *Indus* apparently entered a thick field. Three mines were cut before the starboard sweep parted. Two mines were swept by the Port Sweep, before the Port Sweep was also put out of commission. Another mine was observed alongside the free starboard float.

Information obtained later from the prisoners captured at Dhul Island showed that the *Indus* was 4,000 yards short of the range of the guns of that Island at the time. The battery was closed up and waiting to open fire but the Italians were robbed of their target by the ships altering course away to the westward, the destruction of the sweeps resulting in the retirement of the force. The ships returned to Kuba to prepare dan buoys and repair sweeps.

On 12 April H.M.I.S. *Hindustan* (Commander G.V.G. Beamish, R.I.N.) joined and took over as Senior Officer, Force "G" from the *Indus*. At that time the following ships were at Kavet :—*Indus*, *Parramatta*, *Lucia* and *Ratnagiri*. Ships remained off Kavet under way providing an anti-submarine screen to the *Lucia* at night. The *Lucia* had on board Naval Staff officers from Aden and instructions were received from the Senior Officer, Red Sea Force, to make the best possible arrangements to land them at Massawa.

On 13 April the *Indus* swept with double orepesa at seven fathoms. The *Ratnagiri* danned. The tug *El Kebir* towed the barge which was heavily loaded with essential stores. H.M.A.S. *Parramatta* left Kuba at dawn. The *Hindustan* proceeded south towards Kuba. About this time a signal indicating a suggested channel was received from the Naval Officer-in-Charge, Massawa.

On the 14th further information was received that a clear channel probably ran west and not east of Oreste Shoal. Arrangements were accordingly made by the *Hindustan* to sweep in this direc-

tion and a second and a successful attempt to get through to Massawa was made on the 15th.

At 0500 on 15 April the force proceeded towards Massawa with the *Hindustan* in the lead followed by the *Parramatta* in readiness to stream her sweeps in the event of the *Hindustan* blowing up hers. The *Indus* with no sweeping gear, these having been lost on the 13th, followed to sink mines. The *Hindustan* decided to keep the same track as the *Indus* had taken on the previous day, as far as a position 173° Sheik Abu Light 10 miles, and then keep to the westward passing close to Ras Harb between Oreste Shoal and the mainland subsequently heading straight down towards Massawa.

At 0715 in position $15^{\circ} 58' 30''$ N., $39^{\circ} 21'$ E, the *Hindustan* cut two mines and 35 minutes later when in position $15^{\circ} 55'$ N., $39^{\circ} 24'$ E. the port sweep was blown off by an exploding mine. The *Parramatta* immediately streamed her port sweep thus filling the gap left on the *Hindustan's* port side. The *Indus* following, had sunk the cut mines and managed to retrieve the *Hindustan's* port float and otter which, strange to say, were undamaged. As a matter of interest, the mines were clearly seen from the ship's bridge close to and under the ship. It was difficult to assess the depth setting of the mines, but it was roughly from 12 to 15 feet. The *Hindustan's* draught was $10' 3''$ forward and $10' 4''$ aft the anti-submarine dome being unshipped.

The advance to Massawa was continued keeping close to the westward of Orestes Shoal buoy. After passing Orestes Shoal, a double line of large mooring buoys was observed. These were laid in a 180° direction as far as position $15^{\circ} 41\frac{1}{2}'$ N., $39^{\circ} 29''$ E. Advantage was taken of these to make them the eastern limit of the swept channel and the area was covered as close to them as possible. No further mines were encountered and by noon the force comprising the following was anchored in Massawa harbour :—

H.M.I.S.	<i>Hindustan</i>
H.M.A.S.	<i>Parramatta</i>
H.M.I.S.	<i>Indus</i>
H.M.I.S.	<i>Ratnagiri</i>

Mine clearance of the harbour was necessary and the naval officer in charge intimated that the port would be prepared to accept shipping via the northern channel as from the afternoon of 18 April, but ships had to arrive in convoy led by a sweeper. Although harbour space was limited due to ships scuttled by the

Italians a berth alongside was available for one 425-foot vessel drawing 25 feet and a second ship leading from a pontoon.⁷

From 15 April Force "G" based on Massawa was employed in clearing and extending the channel, escorting ships to and from Mersa Kuba and Kavet and buoying the channel with permanent buoys and moorings.

The re-opening of the port relieved the transport service which hitherto had to carry army stores along nearly 220 miles of motor road from the advanced base at Kassala, 300 miles by railway from the sea base at Port Sudan.

Towards the end of the month operations were undertaken to mop up possible Italian garrisons in the outlying islands. On 29 April, the *Indus* landed a party at Harat Island but found the island evacuated and the guns destroyed.

On 2 May the *Indus* while sweeping ahead of the *President Doumer* cut three mines ahead of her in position 15° 55' N, 39° 24' E. The mines were avoided by the prompt action taken by the *Doumer* by a quick zig-zag. It was probable that those mines were just outside the Channel as the dan buoy marking that side of the Channel was missing. The next day while leading a convoy out of Massawa, the *Indus* again cut and sank one mine ahead of the *President Doumer* in about the same position.

On 7 May, the *Hindustan* and the *Indus* carried out a clearance sweep outside the dan buoys, the French sloop *Commandant Dubo* following astern to sink the swept mines. On this occasion the *Hindustan* swept up three mines simultaneously in position 15° 58½' N., 39° 20¾' E. The *Indus* swept one mine in position 15° 55' N., 39° 24' E and two mines in position 15° 58' 45"N, 39° 20' 30" E. During the afternoon of the same day both ships carried out searching sweeps between Kuba and entrance to searched channel.

7. "The scuttling of ships at Massawa was carried out according to a well thought-out plan. At first sight it appeared that the enemy had been successful in forbidding us the use of the inner harbour but fortunately this was not the case. A ship was sunk right across the entrance and ships were scuttled all along the deep water berths in the docks. In both cases the attempt just failed. It is possible for a medium size ship to pass the blockship in the entrance and there are two berths still. A ship of nearly 500 ft. length can be taken in one place and a smaller one in another. Twenty Italian and six German merchant ships have been deliberately sunk at Massawa in addition to two torpedo boats and some small naval craft. Most of these ships have gone down on an even keel and lie in some cases with their upper decks awash. It is a very sad sight to see these ships out of commission and it is hoped that some of them at least will one day be back to "their trade" (Report submitted by Lt. Cdr. Alexander Funk, Staff Officer Intelligence, Aden—File No. 601/12253/H.)

On 8 May in the morning both ships carried out a searching sweep between Kuba and the entrance to the swept channel. No mines were discovered in this area which was considered free. In the afternoon again both the ships carried out a further clearing sweep outside the swept channel. This time no mines were cut and the channel was considered to have a safety margin of three hundred yards on either side. The total width of the channel varied between 700 to 800 yards which together with the safety margins gave a total width of from 1,300 to 1,400 yards of swept water. All surplus mines laid during the initial operations were weighed.

On 10 May, at 0615 a floating mine was observed by the *Indus* in Massawa harbour floating towards the *Change* in position 055° from Massawa Light House one mile. This was immediately sunk by sub-calibre gun fire. This mine appeared to be of a different type, being of a flat-topped variety with horns at right angles from the sides. The mines sunk by gun fire did not explode and it appeared that the mooring spindle safety device was in operation.

Minesweeping, buoying channel with permanent moorings, and escorting ships to and from Massawa to Kuba continued. Since the commencement of operations on 1 April up to 10 May 1941, approximately seventy-five miles of channel was cleared and buoyed. Over thirty mines were accounted for and approximately 19 ships conveyed to and from Kuba and Kavet to Massawa.⁸

Mopping up Operations in Neighbouring Areas

Towards the end of April 1941, operations were undertaken to mop up possible Italian garrisons in outlying islands. Under instructions from the Naval Officer-in-Charge, Massawa, the *Ratnagiri* proceeded from Massawa to Nocra at 0610 on the 27th, to take possession of the island. The ship arrived there at 0910 and the army officer in charge of the expedition proceeded ashore at 0945 to the Resident where he formally accepted the submission of the island. Information was obtained regarding the various Italian, German and Eritrean personnel on the island together with the location of various food dumps. To assist in collecting all these at a common base Lieut. T. Edmond and Sub. Lieut. W. Little, R.I.N.V.R., proceeded in charge of naval and army landing parties and this work was carried out until sunset.

⁸ Report of Commander G.V.G. Beamish, Commanding Officer, H.M.I.S. *Hindustan* to Senior Naval Officer, Red Sea Force, Aden, dated 10 April 1951.

Throughout the days, stores which had been collected on the island were loaded on the *Ratnagiri* and this work continued until 0945 on the 29th, when prisoners commenced to embark. The embarkation was completed by 1530 when the ship weighed anchor and proceeded to Massawa arriving there at 1815.

In all, the following were carried from the Island :—(a) 866 Italian, German, Eritrean prisoners of war and Abyssinians who had to be imprisoned on the Island for political reasons (b) 80 tons of foodstuffs and stores. At 0850 on 30 April, the ship weighed and proceeded alongside and commenced to disembark prisoners and stores. She was finally cleared at about 2300.

On 2 May 1941 again the *Ratnagiri* proceeded to Nocra with dhow *Bil Bil* in tow, arriving at 1350. Until 1705 on 3 May, when the ship returned to Massawa, the following stores and personnel were embarked :—50 native police, 33 Italian prisoners of war and 30 tons of foodstuffs and stores.

Loss of the Parvati

At about 0430 on 30 April, while H.M.I.S. *Parvati* was on Perim patrol, an immediate message was received from the S.N.O. Red Sea ordering her to proceed to a position off Assab. The *Parvati* arrived there at about 0745 and commenced patrol 5 miles east and west of the position ordered. As Assab was still in Italian hands and the presence of mines in the vicinity of the harbour was suspected, the Commanding Officer (Lieutenant H.M.S. Choudri, R.I.N.) exercised 'Abandon Ship' and took all the necessary precautions. At about 1440 H.M.S. *Ceres* arrived off Assab with instructions regarding the operation. On going on board the *Ceres*, Lieut. Choudri was ordered to take the Motor Launch *Eureka* with a marine guard under his orders and proceed into Assab harbour to carry out a general reconnaissance. The *Ceres* was to lead both ships up to the northern entrance of the harbour and then patrol outside. The *Parvati* was ordered to follow the *Ceres* to obtain protection from her paravanes.

Returning on board, the Commanding Officer of the *Parvati* briefed his ship's company on the details of the operation. The convoy formed up with the *Ceres* in the van closely followed by the *Parvati* and the motor launch. Course ordered was 302°, at the speed of 10 knots. In spite of proceeding at her maximum revolutions, the *Parvati* kept opening out from the *Ceres*.

At about 1552 the *Ceres* was about 7 cables ahead of the *Parvati* in position 13° 10' N. and 42° 53' East when she hoisted the signal 'mine inside ahead'. The weather conditions prevented the *Parvati*

sighting the mine for some time after the signal was read. She therefore slowed down and "Action Station" was ordered, to bring as many men on the upper deck as possible. Immediately after, the mine was sighted about $1\frac{1}{2}$ cables 5° on the starboard bow, by her First Lieutenant and look-outs. The ship went full speed astern to take the way off. When all way was lost, the ship was manoeuvred till the mine passed clear down the starboard quarter. The ship was steadied on her course astern off the *Ceres* by the Navigating Officer (Sub. Lieut. J. S. Mehra, R.I.N.R.) while the Commanding Officer himself signalled to the motor launch (following astern to destroy the mine). The *Ceres* then commenced turning to starboard signalling to the *Parvati* by light "Operations cancelled, follow me".

Very soon afterwards before the *Parvati* had increased to full speed, at about 1607 while she was steering 302° and still in the track of H.M.S. *Ceres* a big explosion was heard in the forward part of the ship. The wooden deck overhead of the lower bridge was blown off and the Commanding Officer fell down on the deck. Realising that the ship had struck a mine, he got up immediately and saw that the forward part of the ship was sinking rapidly and diving into the sea. He put the engine room telegraphs to stop and ordered 'Abandon Ship' by word of mouth and ship's siren. He turned round to pick up his own life jacket which had been placed nearby but it had disappeared; probably blown by the shock of the explosion. He looked forward over the bridge and saw no one except one Stoker from the ammunition supply party lying down on the upper deck apparently dead. The upper deck was almost in level with the sea. She had started listing to starboard. Turning to the boatdeck, he saw the ship's company assembled at the 'Abandon ship' stations and getting the boats ready for lowering. He shouted 'Lower away boats—out rafts' then with an Aldis lamp lying near him he flashed "SINKING" three times to H.M.S. *Ceres* as he had sent every one away from the bridge including the Signaller to their boats.

H.M.S. *Ceres* was by now on the *Parvati's* starboard quarter. The forward part of the ship was completely under water by now. The ship had listed heavily to starboard sloping the boat deck to an angle of 40°. Much difficulty was being experienced to lower the boats. The after fall of the starboard life boat appeared to have jammed. The whaler capsized as soon as lowered owing to heavy list. Half of the boat deck was under water then. The Commanding Officer (*Parvati*) thereupon ordered the use of rafts. He

himself stood on the after starboard corner of the lower bridge which was then sloping at an angle of some 45°. The starboard side of the boat deck was under water up to the foot of the main mast with the stern and the port side sticking up high in the air. Most of the men had jumped off. Water was up to Lt. Choudri's knees when he started swimming away from her, and while doing so he saw the top of main mast coming down fast on to him. The truck of the main mast was very near him when he was sucked down some forty feet under water. On coming up on the surface, which he only just managed to do, he could see nothing left of the ship except some pieces of wood and some men on rafts too far away from him. He was sucked twice again but not so deep as the first time. When he came to the surface after the third dip, he found a wooden box near him to which he held on for about an hour and a quarter. He was picked up by the motor launch *Eureka*.

H.M.I.S. *Parvati* sank within one and a half minutes after striking the mine. The big life boat on the starboard side was filled with water before it could be lowered completely. The whaler on the port side capsized as soon as it was lowered, and the third boat could not be lowered at all owing to heavy list to starboard. All boats had been swung out before hand. Five rafts were got out by Sub. Lieutenant Lodge and his party and the remainder floated off after the ship sank.⁹

There was not the least panic in the ship when she struck the mine and every one behaved calmly and tried to help each other. An example of bravery and selflessness was displayed by H. O. 866 Abdul Rehman, Trimmer. He was lying down on the deck with his legs and lower part of his body rendered senseless when help was offered to carry him by the Second Engineer Mr. J. Bent and others. This man simply refused to be helped saying that his end had come and he wanted others to get out of the ship and save their own lives. Among the officers, the Commanding Officer mentioned the names of Sub. Lieut. J. S. Mehra, R.I.N.R., Sub. Lieut. E. Lodge, R.I.N.V.R. and Sub. Lieut. S. M. Cohen, R.I.N.V.R.

Operations at Dante and Guardafui—Operation "Chapter"

Cape Guardafui Channel is the most easterly point of Africa. In order to facilitate the passage of this channel, it was decided to undertake a combined operation to capture and operate Cape Guardafui lighthouse and to clear up the north-east corner of Italian

⁹. Report on the sinking of H.M.I.S. *Parvati* File No. 601/10050/H.

Somaliland. To implement this project the following ships of the Red Sea Force were detailed to carry out the operation :—

H.M.I.S. *Clive* (Commander H.R. Inigo-Jones, R.I.N.), H.M.S. *King Gruffydd* (Lt. Commander Gabbett, R.N.)

Both ships weighed anchor at 1000 on 13 May 1941 and proceeded in company to Dante, (70 miles south of Cape Guardafui) with a speed of 8 knots.¹⁰ On arrival there they were to be ready to bombard, should the force of Commandos under the command of Brigadier Chater R. M. meet with any opposition when taking the port from landwards. Cape Guardafui was passed at 1730 on 15 May. At 0440 on 16 May the ships were in position 10° 47' N, 51° 37' E. At 0600 the *Clive* streamed double "O"sweeps and swept the *King Gruffydd* into the northern anchorage. No mines were cut, and no opposition from the shore was encountered. The *Clive* anchored in position 090° Hurdia Point 1.0 mile and the *King Gruffydd* in position 090° Hurdia Point 1.5 miles. The latter sent in a motor boat to Hurdia landing jetty to make contact with the army. This was done and Italian troops, who had surrendered to Major Musgrave the day before, were taken over to Dante at about 1200.

On completion of this operation, a conference was held on 17 May at Hurdia with Brigadier Chater, a Group Captain, R.A.F., Commanding Officer, H.M.I.S. *Clive*, Commanding Officer, H.M.S. *Gruffydd*, Majors Musgrave and Cuppage and a few other officers to decide the tactics for further operations at Tuhom and Guardafui Lighthouse. The original scheme of landing at Bargal and Tuhom was cancelled, largely on account of the bad landing conditions along the east coast and also for strategical reasons. Air co-operation was also arranged. It was decided that the landing of troops would take place at Damo on the north coast, about 1.6 miles west of Guardafui Lighthouse.

The troops were then embarked, one platoon in the *Clive* and one platoon in the *King Gruffydd*. Both ships weighed anchor and proceeded at 1600 on 17 May. At 0640 on 18 May both ships anchored off Damo in approximate positions, the *Clive* 020° Damo 800 ft. Peak 0.9 miles. At about 0700 a party of Italian soldiers was seen retreating inland. The *Clive* opened fire. The party dispersed and no further activity was discovered. Disembarkation of troops commenced at 0725. Despite bad weather landing was

¹⁰ Report of the Commanding Officer, H.M.I.S. *Clive* to the Senior Naval Officer, Red Sea Force, Aden, File No. 601/10050/H.

completed by 1130 by local surf boats without encountering any opposition.

At noon Major Musgrave moved off with two platoons to contact the Italians. At the same time the *Clive* weighed and proceeded to Tuhom to give support for troops advancing overland from Damo. The *Clive* anchored at 1435 in position 060° W/T station 1.8 miles and remained in readiness to bombard, if necessary. The *King Gruffydd* remained at Damo and landed an armed party to occupy Guardafui Lighthouse. This operation was completed by 1730 and the light was functioning correctly by 1830.

At 0400 on 19 May a message was received in the *King Gruffydd* from Major Musgrave saying that owing to the strong position taken up by the Italians and the bad state of health of his troops who were still suffering from the effects of sea-sickness when landing, he had retired to cover the defence of Damo village and the lighthouse. Major Musgrave himself came off to the *King Gruffydd* for a further conference. The *Clive* did not establish contact with Allied land force until about 0700 on 19 May. At 0815 she received a signal from Major Musgrave who was in the *King Gruffydd* requesting that bombardment of the Wadi to westward of Tuhom village should commence as soon as possible.

At the same time as the signal was received, a party of Italians was seen advancing towards the beach carrying a white flag, hence fire was withheld and Major Musgrave informed of the surrender. During the course of the day all the Italians from positions west of Tuhom village were brought into the village without any resistance being offered by them.

Embarkation of prisoners commenced at 1500 and was completed by 0630 on 20 May. The total number embarked was 19 officers and 61 men. The *Clive* weighed anchor at 0645 and proceeded to Damo where it anchored at 0750 and all prisoners were transferred to the *King Gruffydd*.

At 1700 the *Clive* proceeded to Dante. The *King Gruffydd* embarked Major Musgrave and his companions leaving one Pilot officer and a platoon to guard the Lighthouse and occupy Tuhom area. The ship proceeded to Alula, arriving there at 0830 on 21 May. A landing was effected without opposition. Four officers and 35 men—Italian prisoners of war—were embarked and the ship proceeded to Aden at 0400 on 22 May calling at Banda Cassim on the way to pick up two Aircraftsmen with personal luggage who were required at Aden. At 0645 on 21 May the *Clive* anchored in posi-

tion 090° Hurdia Point 1 mile and commenced embarking Italian prisoners of war from the Dante in the ship's boats. Embarkation was completed at 1900, the *Clive* weighed at 1915 and proceeded to Aden arriving at 1615 on 23 May when all prisoners of war were taken over by the army authorities and landed. The *King Gruffydd* arrived at Aden at 0800 on 24 May and disembarked prisoners. The total number of Italian prisoners of war disembarked at Aden was 7 officers and 58 men from the *Clive* and 23 officers and 96 men from the *King Gruffydd*.

Capture of Assab—Operation "Chronometer"

Assab lies on the Red Sea Coast commanding the Straits of Bab-el-Mandeb. It was the first place in Africa to be occupied by the Italians. It consisted then of a small harbour with a well laid-out town behind. The capture of Assab was decided upon with a view to remove the threat to Allied shipping in the Red Sea.

On 26 May 1941, Rear Admiral R.H.C.Hallifax, C.B, Senior Officer Red Sea Force, in company with the Air Officer Commanding, Aden, proceeded to Harar to meet General Cunningham, General Officer Commanding, East African Forces.¹¹ In discussing the possibility of the capture of Assab, General Cunningham expressed agreement with the views of the Commander-in-Chief, East Indies and stated that he himself wished to capture the port (Assab) in order to stop supplies which were being sent to Djibouti and to check intrigues which the Italians from Assab were carrying on in the Yemen. He agreed also to return to Aden 3/15 Punjab Regiment. The Air Officer Commanding agreed that this force with other small detachments would be sufficient to capture Assab if landed and supported by the navy. The Senior Officer, Red Sea Force thereupon reported to the Commander-in-Chief, East Indies and a joint planning committee with the representatives of the three Services was set up and a plan was prepared for the operation which was given the code name "Chronometer".

On returning from Harar, opportunity was taken to fly over Assab, and this and other close range reconnaissances tended to confirm the information that all coast defence guns had been removed and that the place was held lightly. H.M.S.*Dido* which was due to call at Aden on her way to repair damage by bombing received in the Mediterranean, was placed at the disposal of Rear

¹¹ From the Report of Rear Admiral R.H.C.Hallifax, CB, Senior Officer Red Sea Force (letter No. 796 dated 19 June 1941) to the Commander-in-Chief, East Indies Station on Operation "Chronometer", Capture of Assab, File No. 601/10051/H.

Admiral R.H.C. Hallifax and the operation was planned to be carried out at dawn on 10 June 1941.

The Admiral hoisted his flag in the *Dido* and sailed from Aden on Monday, 9 June. Brigadier Dimoline, the Military Commander, and his staff also embarked. H.M.I. ships *Indus* and *Clive* were detailed to carry out an exploratory sweep before the main operation commenced. Strong head winds delayed the *Clive* who was towing the tug *Kalisco* and *Tuna*, which ship was carrying motor transport and other important stores. On reaching Perim, the Senior Officer, Red Sea Force decided in consultation with Brigadier Dimoline to postpone the operation by 24 hours. He, therefore, ordered the force to enter Perim harbour and anchor. The postponement enabled 3/15 Punjab Regiment, which had been cooped up in the *Chakdina* for $2\frac{1}{2}$ days after leaving Berbera, to have some free time ashore on Perim Island. The Senior Officer Red Sea Force decided to leave the tug *Kalisco* at Perim as, in view of the weather, it seemed improbable that she would arrive at Assab. He therefore arranged to take out of her sweeping gear and hoped that if inshore sweeping were necessary he should be able to use a local tug which he knew was at Assab and which he hoped to capture intact.

The expedition left Perim at 1930 on 10 June 1941 and proceeded northward in two columns. The forces consisted of :—

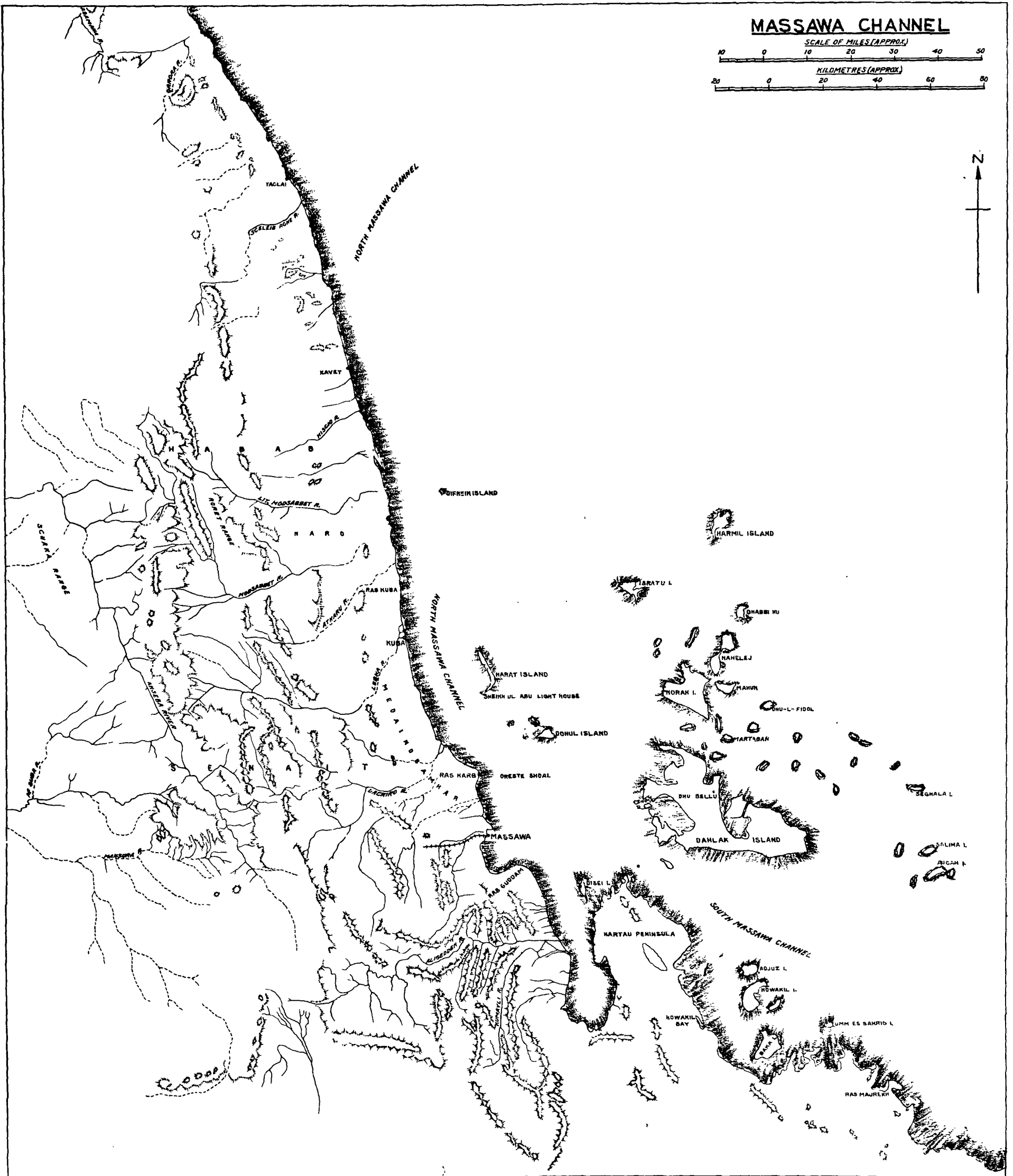
H.M.S. <i>Dido</i>	(Rear Admiral R.H.C. Hallifax, CB, Senior Officer)
H.M.I.S. <i>Indus</i>	(Commander E. G. Hunt, R.I.N.)
H.M.I.S. <i>Clive</i>	(Lt. Commander R. R. Caws, R.I.N.)
H.M.S. <i>Chakdina</i>	} Acting as transports for the landing party consisting of 3/15 Punjab, one company of Signallers and a company of Royal Engineers.
S. S. <i>Tuna</i>	

There was a fairly strong northerly wind blowing at the time and therefore the Senior Officer decided to amend the position already laid down in his orders so as to avoid large alterations of course and to pass either within visual distance or at any rate a range which would give accurate results of detection by R.D.F. (Radar Direction Finder) of the Island of Harbi. On the run to the north the instrument proved to be of the greatest value and an accurate range was obtained of the Hanish Islands and later Harbi and Sanah Bor Islands which enabled the expedition to approach and anchor, as previously arranged, with great accuracy.

During the night of 10/11 June, the force approached the Assab anchorage from the north, the *Indus* using double Oropesa sweeping ahead to a position off the port. The expedition was swept into the anchorage by the *Indus*, but no mines were encountered. On anchoring at 0330 the *Indus* carried out searching sweeps towards Sanah Bor and round the position where the *Dido* was anchored with the object of giving some room to manoeuvre should it be necessary to get under way, and then waited close to the *Chakdina* to sweep her into the inner harbour when ordered. At 0434 the two Eureka motor boats under Commander Vernon and Lieutenant Commander Black respectively, each carrying 30 men of 3/15 Punjab Regiment, proceeded into the harbour passing close eastward of Sanah Bor Island. At 0505 the *Dido* commenced a deliberate bombardment and ceased fire at 0512. At the same time aircrafts were sighted over the town and these bombed the roads in the approaches and flew low over the town to drown the noise of the motor boats approaching. At 0519 the Eureka Motor boats arrived off the main pier and landed the soldiers without difficulty or opposition. Commander Vernon seized the Italian tug with promptness and fortitude before it could be scuttled.

On the Italian side there was hardly any sign of vigilance and the bombardment caught many of them asleep on the pier. Two Italian Generals were captured, locked in sleep in their beds. At 0600 the signal indicating success was seen in the *Dido* and the Admiral ordered the *Chakdina* followed by the *Tuna* to enter the harbour, the *Indus* sweeping in ahead of them, the *Clive* darning the channel. No mines were encountered, and *Chakdina* was anchored off the pier and the remainder of 3/15 Punjab Regiment immediately landed. The *Tuna* was berthed alongside at a partially completed jetty close to the southward No. 1 pier and disembarkation was commenced. At 0700 the Civil Governor and an interpreter were brought off to the *Dido* by Commander Vernon and they formally surrendered the town of Assab to the Senior Officer Red Sea Force (Rear Admiral R.H.C. Hallifax) and Brigadier Dimoline. The *Indus* then swept out and buoyed a channel into the harbour and at 1100 the *Dido* entered and anchored off Ras Gombo Light House.

During the afternoon the *Dido* sent parties to examine the islands but neither personnel nor material were found. At 1600 the Senior Officer Red Sea Force landed. At 1615 the Union Jack was hoisted in the Assab harbour square, guards being provided by the *Dido* Marines and the Punjab Regiment. Captain Bolla of the Royal Italian Navy, the Senior Naval Officer at Assab, was captured. Rear Admiral Hallifax interviewed him. Although



the Italian Captain had previously refused to give any information as regards mines, he gave the Admiral the position of three mine-fields and stated that the channel to the eastward north of Ras Fatma was clear. The following day the *Indus* carried out a sweep of the eastern channel to the 100 fathom line. No mines were found. Five hundred and forty seven prisoners including two Generals, Captain Bolla and 35 Germans were embarked. At 1615 the Senior Officer of the Red Sea Force sailed by the eastern entrance for Aden being swept out by the *Indus*; the *Clive* again darning.

H.M.I.S. *Indus* (Commander E. G. Hunt, R.I.N.) after taking part in the successful operation against Assab carried out further patrols from Aden. On 23 June 1941 Commander J. W. Jefford took over as Commanding Officer. H.M.I.S. *Indus* and H.M.I.S. *Clive* sailed on the 24th to commence the task of clearing the Massawa minefields. The *Clive* carried out minesweeping operations in company with the *Indus* off Massawa till 9 August when she left for Aden for boiler cleaning. She called at Karachi on 21 August for fuelling and arrived at Bombay on 31 August for refit.

The Commanding Officer, *Indus* reported very favourably on the behaviour of the sailors. July and August are the two worst months in that area. The average temperature on the bridge and the sweeping deck throughout the day was between 150° and 160° and in the Officers' cabins by day it was rarely less than 100°. The sailors, however bore this heat without any complaint, their slogan being "it will be all right in September."

H.M.I.S. *Hindustan* left Aden on 4 June 1941. After a delay she arrived at Bombay on 12 June. After refitting she sailed from Bombay on 20 July, arriving at Aden on the 27th. Patrols were carried out from Aden.

H.M.I.S. *Ratnagiri* was based on Massawa during the whole of June and until the latter part of July 1941. She returned to Aden on 23 July to carry out patrols.

On 5 September 1941 the *Ratnagiri* (Lieut. S. G. Karmarkar, R.I.N.R.) received orders to proceed to Zeila and the neighbouring islands with a view to investigate smuggling into Djibouti. A party of two officers and 9 other ranks was embarked to carry out that reconnaissance.

On the 9th morning the *Ratnagiri* anchored off the west side of Aibat Island. A party was landed to search the island. The island was low lying with small shrubs practically covering the whole area. A small shrine was noticed by the reconnaissance party and

traces were found of two or three men having visited the place about 7 days previously. However, no traces of dhow traffic or cargo being landed were seen. At 1100 the island of Saada Din, south of Aibat, was visited. Nothing of importance was discovered there.

The ship then sailed to Boomerang spit and anchored in position $11^{\circ} 29\frac{1}{2}'$ N., $43^{\circ} 21'$ E. That island was a long strip of sand with a few shrubs in the centre. The motor boat was sent ashore at 1700 in an attempt to land the military personnel on the mainland but owing to reefs, this was found impracticable. Next morning, the *Ratnagiri* sailed round to the east of the island to investigate three smaller islands and to attempt to land the shore party. There were traces of cargo traffic. The shore party was landed at noon that day. By night a motor boat patrol was maintained and look-outs were placed at the most advantageous positions. No dhow traffic was observed. The French post at Loya Ada was visible from Boomerang Island. It was said to consist of two 75-mm batteries manned by two companies of French Senegalese troops. The *Ratnagiri* was in visual communication during daylight with her frontier post at Warak Fuli. A continuous night patrol was arranged along the coast to stop any traffic in small dhows.

The *Ratnagiri* was also employed during September 1941 to repatriate Yemen nationals from French Somaliland. She was also asked to report on the prospect of landing stores on the beach at Riyan for the Royal Air Force Aerodrome. She accordingly surveyed the area and submitted a detailed report on 1 November 1941 on the impracticability of landing stores at Riyan during the South-West monsoon period owing to the prevailing heavy swell. It was considered practicable to land stores during the rest of the year.

*Minesweeping Operations—H.M.I.S. "Hiravati" and
H.M.I.S. "Prabhavati"*

Early in October H.M.I.S. *Hiravati* and H.M.I.S. *Prabhavati* received orders to proceed to Massawa via the Northern Massawa Channel. They reached Massawa on 7 October 1941 and commenced minesweeping operations in the Northern Channel on the 9th.

The area to be cleared was defined as a lane 1,000 yards to the eastwards of the buoyed channel, commencing from Oresta Shoal buoy to the buoy marking position Lat. $16^{\circ} 06' 40''$ N, Long. $39^{\circ} 17' 30''$ E and thence close inshore to the westward of the Channel¹².

¹² Report of the Commanding Officer H.M.I.S. *Hiravati* dated 19.11.1941, File No. OP, 3725 NHQ (I).

H.M.S. *Derby* joined in the operations on 16 October, Lt. Cdr. Mc Fee R.N.R., in command assuming the duties of senior officer Minesweeping Squadron. Operations in the Northern Channel were completed on 21 October. It was then decided to clear an area suspected to contain a minefield within the limits of :—

A	15°	34'	50"	N	39°	42'	E
B	15°	41'	45"	N	39°	42'	E
C	15°	41'	45"	N	39°	48'	40" E
D	15°	34'	50"	N	39°	48'	40" E.

Clearing operations in "G" formation commenced on 23 October but no mines, other than floating, were discovered till 30 October. The Madote Light House area was cleared of mines on 31 October, the object being to create a safe channel for ships bound for Massawa via the South Massawa Channel.

The next stage in the proceedings started on 3 November and was in the nature of searching sweeps from the above defined area to a position Lat. 15° 22' 30" N, Long. 40° 07' 30" E (Howtha point). Although other ships had searched the narrows on four previous occasions, H.M.I.S. *Hiravati* swept up three mines at one time on the first day's operations. It was then decided that the narrows be cleared and accordingly operations commenced on 4 November.

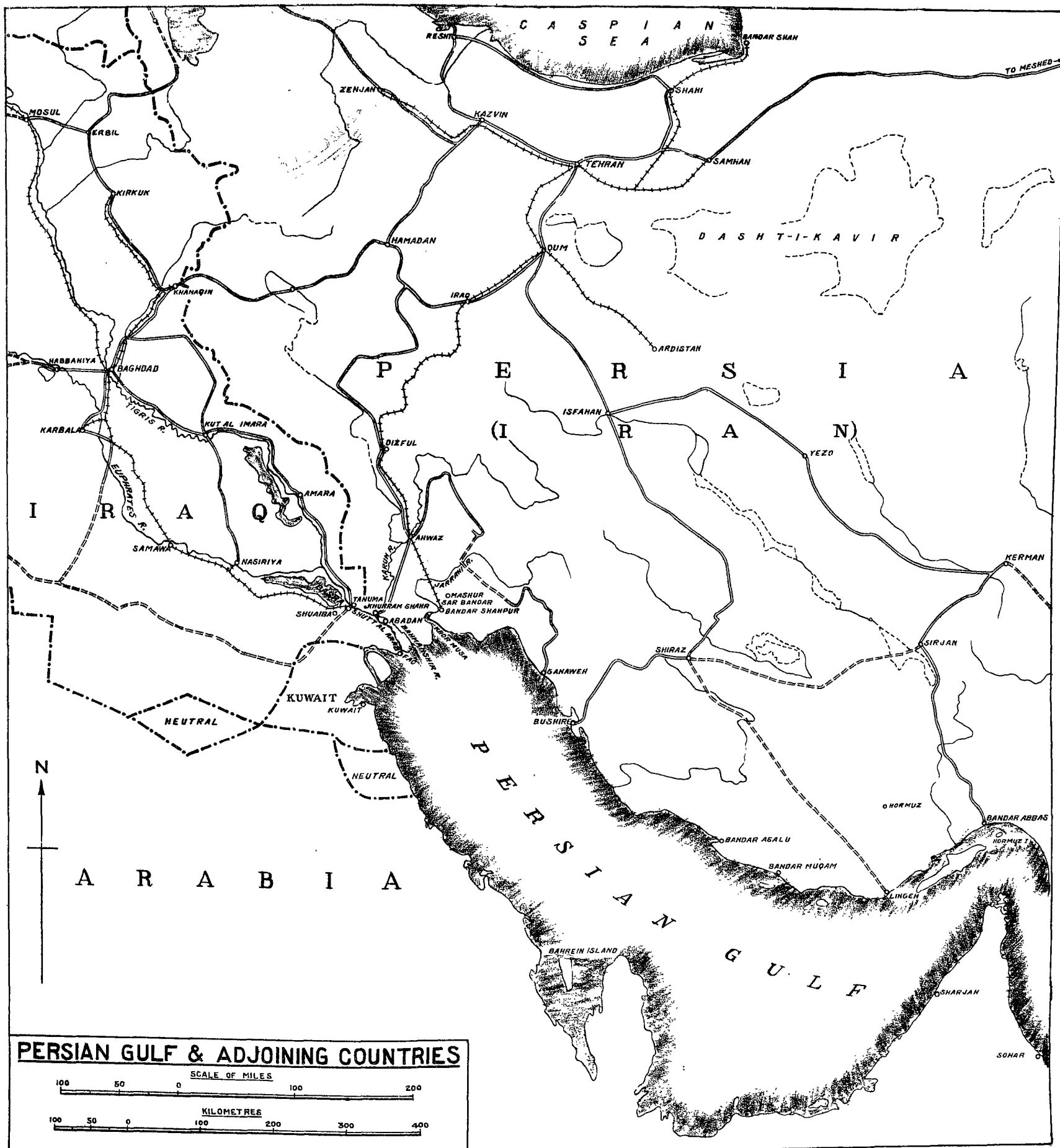
An analysis of the operations showed that altogether 49 mines were sunk. Of these H.M.I.S. *Hiravati* swept 18 of which she sank 10. She also sank a further 22, seven of which were floating mines. From the minesweeping operations it was found that the *Hiravati* was an ideal minesweeper. H.M.S. *Derby*, although built for the purpose and carrying an equal complement, was not so good.

The *Prabhavati* and the *Hiravati* left Massawa on 10 November 1941 through the South Channel. A searching survey was carried out in "H" formation from Assarka Island along the centre line through position Lat. 15° 22' 30" N, Long. 40° 07' 30" E, to a position 342° Umm-es-Sahrig Island Light House five miles distant. No mines were out.

The work of the ships' companies during these operations was greatly to be appreciated. In spite of the Ramzan fasting and other trying circumstances both officers and men carried out their duties with zeal and efficiency. An instance of the arduous work they performed in temperatures frequently reaching over 95°F in the shade was the darning operations. It was not uncommon to lay 12 dans and pick up a like number during the course of the day.

This work was carried out willingly and without any pressure from the officers.

Though the battles in other theatres of war then raged fiercely, the reduction of Eritrea and the Italian Somaliland and later the prompt action taken in Iran removed for a time the main threat to Indian shipping nearer home waters. It was a tribute to the vigilance of the Royal Indian Navy and to the courage and experience of the Merchant Marine that losses of merchant shipping were insignificant.



CHAPTER V

Operations in the Persian Gulf

Mention has been made earlier that at the outbreak of war H.M.I.S. *Hindustan* in company with H.M.I.S. *Indus* proceeded from Bombay on 5 September 1939 to join the Persian Gulf Division of the East India Squadron under the command of Senior Naval Officer, Persian Gulf. Towards the end of October 1939 H.M.I.S. *Clive* and H.M.I.S. *Lawrence* joined the Force in the Gulf. The duties of the ships were to patrol the straits of Hormuz so as to protect British and Allied shipping in the Gulf and to prevent the entry of hostile raiders and the escape of interned German ships from Iran. These duties were very vital for war effort as the principal traffic consisted of oil-tankers carrying oil from Abadan, Basra or Bahrein to the Middle East and returning to refill again. The *Clive*, the *Indus* and the *Hindustan* performed duty in the Persian Gulf for short periods only but the *Lawrence* remained in the area till the capture of Bandar Shahpur.

In 1940 the *Indus* left to join the *Hindustan* in patrolling the Shatt-al-Arab Zone. It was then expected that the German ships in the Khor-Musa river would try to break through. By May there were indications that Italy would soon join the war. Actually two of her ships S. S. *Barbara* and *Bronte* were lying off the Khor-Musa river, and when hostilities broke out they managed, in spite of vigilance, to move up into territorial waters. It was certain then that the Italian submarines would interfere with trade routes in the Indian Ocean. In fact, early in July, an Italian submarine was reported at the northern end of the Gulf.

To the British Government the safety of the oilfields and pipelines in Iraq was of prime importance. It was necessary also to prevent German penetration into this region which might threaten the eastern flank of the Middle East Forces. Under treaty rights with Iraq, Britain was permitted to maintain troops in that country in time of war or during threat of war. But until 1941 there were no British troops in Iraq. There was only a training centre for the Royal Air Force at Habbaniya, the British Air Station sixty miles west of Baghdad.

On the outbreak of war in September 1939 the boy King of Iraq was only four years old and his uncle, the pro-British Amir

Abdul Illah was the Regent. The Iraqi Government broke off diplomatic relations with Germany but on Italy's entering the war in June 1940 they did not take similar action against that state, and the Italian Legation at Baghdad became the centre of nationalist agitation. Axis prestige was greatly enhanced by the German victories in the west and the arrival of the Italian Armistice Commission in Syria, while that of the Allies suffered a decline.

By the end of September 1940 the situation in Iraq caused great anxiety in London. The Prime Minister of Iraq, Rashid Ali el Gailani, was obviously pro-Italian and the grand mufti of Jerusalem, exiled from Palestine, was known to be actively in contact with the Germans. The majority of Iraqi army officers also showed signs of pro-Axis feelings. It became necessary for the British Government to stop the anti-British activities, and the War Cabinet decided on 7 November to send a diplomatic mission to Iraq headed by a prominent personality known and respected by the Iraqis and likely to exercise a steadying influence.

General Wavell (Commander-in-Chief, India) had always been anxious not to become involved in operations in Iraq and on 8 March 1941, in agreement with the Commander-in-Chief, Middle East, he suggested to the Chiefs of Staff that if any operations occurred in Iraq they should at first be under the control of India. With this the Chiefs of Staff agreed. The situation continued to deteriorate. All attempts to compel the Iraqi Government to break off diplomatic relations with Italy were unsuccessful. On 31 March 1941, the Regent learnt of a plot to arrest him, and fled from Baghdad to Habbaniya, whence he was flown to Basra and given refuge in H.M.S. *Cockchafer*. Rashid Ali, with the support of four prominent Iraqi army and air force officers, known as "The Golden Square", seized power on 3 April and proclaimed himself Chief of the National Defence Government. Thereupon troops were hurried to Iraq, and early in April the Indian Government decided to divert to Iraq a convoy which was at that time in the process of embarking at Karachi prior to sailing for Malaya. The force in this convoy was under the command of Major-General W. A. K. Fraser, C.B., C.B.E., D.S.O., M.V.O., M.C., Commander 10th Indian Division and consisted of two senior Staff Officers, 10th Indian Division Artillery, 3rd Field Regiment, 20th Infantry Brigade and certain ancillary troops.¹

¹ See Official History of the Indian Armed Forces, *Campaign in Western Asia*, C.I.S. Historical Section, for details of the campaign.

The object of this expedition was to occupy Basra-Shaiba area in order to ensure the safe disembarkation of further reinforcements and to enable a base to be established in that area. Instructions were given to Major-General Fraser to act in the closest concert with the Officer Commanding the Naval Forces, to overcome opposition by force and occupy suitable defensive positions ashore as quickly as possible, should the embarkation be opposed and to take the greatest care not to infringe the neutrality of Iran.

The Force sailed from Karachi on 12 April 1941. As the Force had originally been prepared for despatch to Malaya, it had not been specially embarked with a view to immediate tactical employment on arrival at destination and consequently a risk was accepted in diverting it to Iraq where an opposed landing was not ruled out. In addition to the troops proceeding by sea, 400 men of the 1st King's Own Royal Regiment were flown from Karachi to Shaiba. The arrival of the first air party was timed to synchronise with the arrival of the convoy. Troop-carrying aircraft used were seven R.A.F. *Valencias* and four *Atlantas* supplemented by 4 D.C. 2's which had recently arrived in India.

The seaborne force arrived in Basra on 18 April and by the evening of 19 April the disembarkation was completed. All evidence indicated that no organised resistance would be encountered on arrival. The initial advantage gained undoubtedly had an important bearing on the subsequent operations.

The naval vessels which covered the operation consisted of H.M.S. *Emerald*, H.M.S. *Falmouth*, H.M.S. *Seabelle*, H.M.I.S. *Lawrence* and H.M.A.S. *Yarra*. The convoy, composed of 8 transports escorted by H.M.A.S. *Yarra*, was met at sea by H.M.S. *Seabelle* from Basra on the morning of 15 April. Later in the day the escort was reinforced by H.M.S. *Falmouth* who became Senior Officer (Escort). On 17 April the convoy was joined by H.M.I.S. *Lawrence* and proceeded towards the entrance of the Shatt-al-Arab. The following day the convoy moved up the Shatt-al-Arab and reached Basra at 0930 hours. H.M.S. *Emerald* was already there.

The movement in the Shatt-al-Arab was made in two sections, each being preceded by two warships :—

Section I—*Cockchafer* and *Falmouth*.

Section II—*Yarra* and *Seabelle*.

The *Lawrence* remained to mask the Control Battery at Fao, while the *Emerald* continued at Basra throughout the operation.

On 21 April the Iraq Government formally agreed to the arrival of the British troops in Iraq. On 29 April British ancillary troops disembarked at Basra.² About 1 May 1941 H.M.I.S. *Lawrence* conveyed the Regent of Iraq, his Prime Minister and two other Ministers to safety from the Shatt-al-Arab river to Kuwait. A severe sand storm persisted all the way and during this difficult passage the ship was set about 30 miles to the southward, dangerously close to the rocks. The *Lawrence* was not fitted with radar, or A/S equipment, and with the sounding machine out of order had to be navigated by hand lead. She arrived at her destination only one minute late (2100). His Royal Highness remained on board that night and left by air the next day for an unknown destination. On 7 May Lieutenant-General E. P. Quinan, C. B., D.S.O., O.B.E., arrived in Basra by air from India and took over command of all British and Indian land forces in Iraq from Major-General Fraser who resumed command of the 10th Indian Infantry Division.

The progress of the 20th Indian Infantry Brigade group was slow. Therefore, preparations were well in hand for another force to advance by the Tigris. This force, under Brigadier Weld, Commander 21st Indian Infantry Brigade, was to proceed by river to Kut and thence by motor transport to Baghdad. All available barges and steamers were collected, many from up-river, and the barges decked so as to take motor transport, guns and armoured cars. These plans were made in conjunction with the Senior Naval Officer Persian Gulf (Commodore C. M. Graham, R.N.) and the convoy sailed on 12 June under command of a naval officer with naval escort. The land force consisted of the 21st Indian Infantry Brigade (less two battalions), two troops of 13th Lancers (armoured cars), one troop of 157 Field Regiment and ancillary units. It reached Kut on 17 June and Baghdad on 19 June. This move up the Tigris had a most salutary effect on the tribes along the route, who otherwise might have been troublesome.

At the end of 1940 Hitler had realised that Britain could not be destroyed by direct air assault. The Battle of Britain had been his first defeat. He then turned his attention to the invasion of Russia in the early summer of 1941. The German Operation "Sea Lion" (against Britain) was then replaced by "Barbarossa" (operation against Russia). His directive No. 21 of 18 December

² File No. 601/12264/H : Assistance rendered to Iraq and France by H.M.I. Ships.

1940 for "Barbarossa" had laid down the general grouping and primary tasks of the forces to be concentrated against Russia. At that time the total German strength on the Eastern Front was 34 divisions. In May 1941 the German deployment in the East grew to 87 divisions. A delay of five weeks was imposed upon that supreme operation as a result of British resistance in the Balkans and on account of the Yugoslav revolution.

Hitler had decided to strike at Russia and defeat her in a single campaign. He was aware of the risk involved but believed that the campaign would be over in two months or three at the most. On 22 June 1941 the Germans attacked the Russian front in great strength. The British reaction was immediate and decisive. The same evening Mr. Churchill broadcast to the nation and made the British position clear. He declared that Britain would give to the Russians whatever help she could.

Danger in the Middle East

In the Middle East the danger was even more pressing, for, the attack on Russia, it was feared, might be the first move in a general south-easterly advance. If Russia collapsed, the large German forces would be readily available for exploitation to the south-east, and the Middle East base would then be exposed. The security of Egypt, Palestine and Syria might be threatened from the direction of the Caucasus and Persia or through Anatolia towards Syria or both. If there was a very early Russian collapse the Germans might reach the Caucasus by mid-August but poor road and railway communications would delay them so much that even if Persia offered no resistance they could hardly be in a position to operate against Iraq, except from the air, before April 1942. These considerations engaged the attention of the Commander-in-Chief at that time.

The Chiefs of Staff considered that the first British object should be to secure the Anglo-Iranian oilfields and the Abadan refinery, for their loss would make it very difficult to carry on war in the Middle East. Basra was a potential base for air re-inforcements to the Middle East and a staging point on the air route to India; it was also the port for the land route between the Persian Gulf and Egypt. For all these reasons the security of Basra and of its sea communications was essential. The loss of the Allied position in the Middle East was viewed as a military calamity of the first magnitude, as it threatened their vital communications to the east.

Turkey

In all those plans and preparations a great deal obviously depended on the attitude of Turkey. Her territory contained the best natural position for defence against a German advance. But Turkey vacillated. On 18 June, only four days before the Germans attacked the Russians, Turkey and Germany signed a treaty of friendship and non-aggression. A week later, it was ratified. By the end of July, Syria had passed into Allied control, the German attack had made great progress towards Moscow, and the Turks, feeling that they might well be the next victims, expressed a wish for secret Staff talks with the British. It was agreed that no German attack was likely before the spring of 1942 and the Turks accepted the proposal to receive British forces.

Nazi Infiltration Into Iran

Iran, an independent neutral country, with oilfields and refineries, lying between Russia and the Persian Gulf, commands a strategical situation. From the time of the Russo-German pact in 1939, until Hitler's sudden attack on Russia in 1941, the danger to Iran's security was apprehended from the latter. A crisis was brewing in Iran³. At the outbreak of war there were about three thousand German nationals in that country. Throughout the latter part of 1940 the British Minister in Teheran had drawn attention to the danger from their presence. More Germans entered Persia after the British occupation of Iraq in May 1941 and many of them obtained important positions on the railways and in government service. This meant that the vital supply line from the Persian Gulf to the Caspian, by which it was intended to send material aid to Russia was in danger of being interrupted and closed altogether. Both General Auchinleck (Commander-in-Chief Middle East) and General Wavell were in favour of taking a very firm line with the Persian Government and, when it became clear that the Persians would not agree to expel those Germans, it was decided to concert action with Russians. A joint Anglo-Soviet note was accordingly presented on 17 August. A few days later, the Chiefs of Staff ordered General Wavell—who as Commander-in-Chief in India, was responsible for Persia and Iraq—to take military action in order to bring pressure on the Persian Government. He was first to occupy the oilfields at Ahwaz, near the head of the Persian Gulf, and at Khanakin to the north-east of Baghdad. With the help

³ Playfair, *History of the Second World War : The Mediterranean and Middle East*, Vol. II.

of the Russians he was then to obtain control of the communications through the country.

Operation "Countenance"

In July 1941 the British Government considered measures to counter the menace of the influx of Axis nationals into Iran and decided to apply Anglo-Soviet diplomatic pressure backed by force, if necessary, on the Iranian Government. Operation "Countenance" was prepared to be put into effect in the middle of August. It involved the occupation of Kuzistan by British and Indian forces while Russian land forces were to advance simultaneously from the Caucasus into North Iran (25th August).

Preliminary arrangements were made by Lieutenant-General Quinan for :—

(i) The concentration of a military striking force on the Iranian frontier in the Basra area, the object of which was to occupy the oilfields and refinery at Abadan.

(ii) The assembly of a naval/military force at the head of the Persian Gulf consisting of three or four sloops and two companies of infantry to occupy Bandar Shahpur and seize the port and shipping.

The naval aspect of the operation was the responsibility of the Senior Naval Officer Persian Gulf (Commodore C. M. Graham, R.N.) who worked in conjunction with the Commander of the 8th Indian Division (Major-General C. O. Harvey). It involved the transport and covering of the army landing forces, the immobilising of the Iranian Navy, and the capture of the German and Italian merchant ships laid up at Bandar Shahpur.

A feature of the operation was that the warships employed, ranging from an Armed Merchant Cruiser to Eureka's, were obliged to operate in hostile waterways so restricted as to deny them any real freedom of action.

This mixed naval force included the H.M.S. *Kanimbla*⁴ (Senior Officer's ship), the R.I.N. sloop *Lawrence*, the sloops H.M.S. *Shoreham* and *Lilac*, the corvette *Snapdragon*, the gun boat *Cockchafer*, the armed trawler *Arthur Cavanagh*, two Anglo-Iranian Oil Company's tugs, one dhow complete with sail and one R.A.F. picket boat.

⁴ *Kanimbla*, a 12,000 ton armed merchant cruiser, "a ship which at first sight appeared most unsuitable as a reinforcement for work in narrow waters, but which turned out to be probably the only ship in the navy which could have supplied what I required in the way of great number of hands, vast administrative endurance, and spacious accommodation"—Cdsmo Graham "Report on Operation Countenance", 26 Sept. 1941.

The force sent against Khurramshahr included the H.M.S. *Falmouth* and H.M.A.S. *Yarra* and small craft.

The Iranian naval force comprised two sloops and four gunboats. Simultaneous attacks were planned against Khurramshahr (the Iranian naval base situated at the junction of Karun river with the Shatt-al-Arab), Abadan (town and island, the Headquarters of the Anglo-Iranian Oil Company) and the port of Bandar Shahpur.

Operation "Countenance" was postponed more than once and D1 day was finally fixed for 25 August 1941.

The Iranain Navy had its base at the mouth of the Karun river just opposite Khurramshahr. The town and wireless station were situated on the west bank, while the naval barracks were situated on the east bank. At Khurramshahr three of the five "T" jetties were occupied by the Persian sloop *Babr*, the Naval School Ship *Ivy* and two gunboats. The task was to capture the naval base at Khurramshahr and neutralise Persian forces there. The naval force employed in this operation included the sloops *Falmouth* and *Yarra* and small craft. It was believed that there were about 1,000 men at the base, which was under the command of Admiral Bayendor.

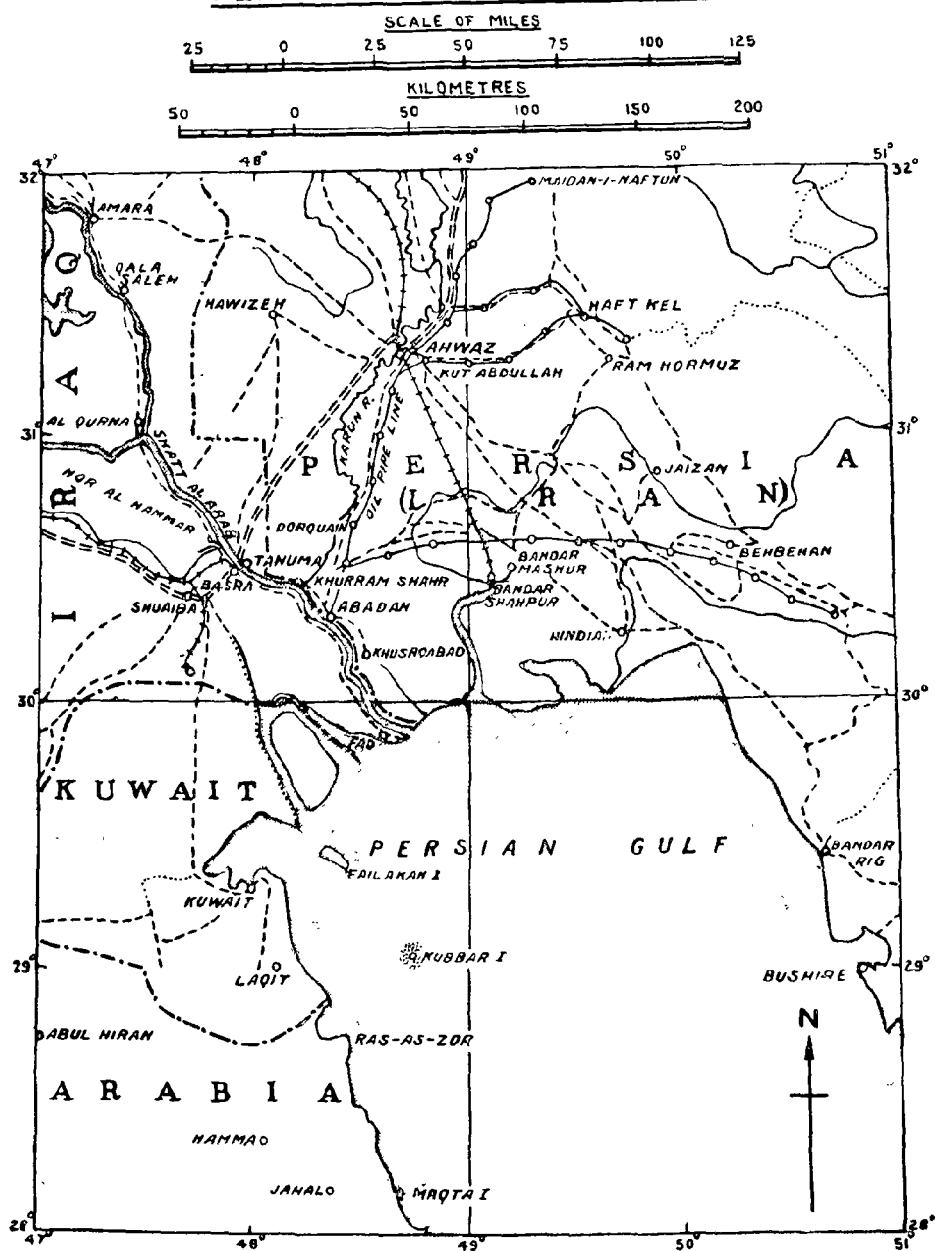
The 18th Infantry Brigade advanced from Tanuma on the night of 23/24 August and, making a wide detour across the desert, arrived to the north of Khurramshahr about one mile from the wireless station at 0410 on 25 August.

At the same time the *Falmouth* and *Yarra* left Basra on the night of 24/25 August with a company of the 3rd Baluch Regiment, arriving at the mouth of the Karun at 0415 on 25 August. In the action which followed, the Iranian sloop *Babr* was sunk, and two gunboats captured. The naval barracks were captured by the soldiers. Admiral Bayendor who commanded the Persian Navy and the local military force was killed while defending the wireless station building. His death, wrote Cosmo Graham, "was regretted by all who knew him. He was intelligent, able, and faithful to Persia."⁵ Admiral Bayendor was buried in the Khurramshahr Naval Base which, with its capture, became H.M.S. *Euphrates* Depot for the Royal Navy in the Gulf throughout the war.

Capture of Abadan

Abadan Island lies between the Shatt-al-Arab and Bahmanshir at the head of the Persian Gulf. The left bank of the Shatt-al-Arab

⁵ Gill, G. H., *Royal Australian Navy* 1939-42.

PERSIAN GULF - OFF ABADAN

from its mouth to the junction with the Karun river, a distance of forty miles, is the western side of the Abadan Island. Eleven miles downstream from the Karun River junction, and round an abrupt bend in the river, the refinery and town of Abadan and the adjacent Bawarda, with numerous berths for large ships, stretched for some three miles along the island bank of the Shatt-al-Arab. Abadan was the headquarters of the Anglo-Iranian Oil Company whose oil refinery was also situated there. There was an aerodrome for the Company's planes. Abadan port town exported oil and imported stores and machinery for the Anglo-Iranian Oil Company. The employees of the company at the time of the operation were 1,000 British and 1,500 Indians. The population of the town was between 70 and 100 thousand.

The 24th Indian Infantry Brigade (less one battalion) embarked in naval craft from Basra on the night of 24/25 August and moved down the Shatt-al-Arab so as to reach Abadan at 0410 on 25 August. While one section of field artillery was embarked, two sections proceeded overland to Seeba on the opposite bank of Abadan. The flotilla consisted of the sloop (H.M.S.*Shoreham*) as armed yacht (H.M.S.*Seabelle*), the Auxiliary minesweeper (H.M.I.S.*Lilavati*), two river paddle steamers (*Ishan* and *Zenobia*), five Eureka motor-boats and four dhows. The operations went according to plan except that some of the Eureka's carrying the first wave of the 24th Indian Infantry Brigade ran aground and were delayed. In consequence the second wave arrived first, although it did not affect the success of the plan. The *Seabelle* and *Lilavati* reached Abadan in time.

The Abadan force reached its objective precisely at 0410. Fire was opened on machine gun posts on shore and within ten minutes the first troops were landed. Most of the Iranian soldiers were asleep in their barracks. H.M.S.*Shoreham* opened fire on the Iranian sloop *Palang* lying at one of the jetties, setting her alight. The firing awakened the Iranians who were completely taken by surprise. A large number fled, escaping in lorries across the Bahmanshir creek. But a few manning posts along the wharves put up a stout resistance. In the ensuing street fighting it was difficult to dislodge the Iranians without blowing up the refineries. However, the refinery area was cleared by 1700 and the troops bivouacked for the night.

Operation "Bishop"

The southern half of Abadan Island was mopped up on 26 August. This operation was conceived with the object of captur-

ing five German and four Italian merchant ships at Bandar Shahpur together with the port itself whose importance lay in the fact that it was the terminal port of the Trans-Iranian Railway. This operation was simultaneous with a combined operation to capture Abadan and south Iran as far as Ahwaz.

The naval and army units which took part in the operation "Bishop" were known as force "B". The Senior Officer Force "B" was Captain Adams, R.N., in H.M.S. *Kanimbla*. Force "B" consisted of :—H.M.S. *Kanimbla* (armed merchant cruiser), H.M.I.S. *Lawrence* (sloop), H.M.I.S. *Investigator* (sloop-ex-survey vessel), H.M.S. *Snapdragon* (corvette), *Cockchafer* (ex-Yangste gunboat), *St. Athan* and *Delaver* (Anglo-Iranian Oil Company's tugs), *Arthur Cavanagh* (H.M. armed trawler), one Dhow, one R.A.F. Picket Boat, and two companies of 3/10 Baluch Regiment.

The general plan of the operation was completed before the arrival of the *Kanimbla* in the Persian Gulf. It was clear that with such a mixed force careful training was necessary if the object of capturing the merchant ships was to be achieved. By good fortune it was possible to train boarding parties with a fair degree of secrecy in an open anchorage, 11 miles from the nearest land, off the entrance to the Shatt-al-Arab river. In this position weather conditions were at times bad for boats. The Dhow and the R.A.F. Launch also suffered damage. Amongst the steps taken to preserve secrecy was a ban on ships returning to the Shatt-al-Arab. In addition, efforts were made by the use of painted canvas to make the *Kanimbla* look as much like a passenger ship as possible; and so successful were all these precautions that it seemed unlikely that even in the bazaar there was any hint that the large "troop ship" which was ashore outside was the mother-ship for a force about to capture the port and the German and Italian ships in Bandar Shahpur.

Eight boarding parties were required, three of which were provided by the *Snapdragon*, *Cockchafer* and *Lawrence* and the remaining five by the *Kanimbla*. In principle they were organised on similar lines, and consisted of an upper deck and engine-room party, whose guiding principle was that men boarding must always work in pairs and work quickly.

H.M.I.S. *Lawrence* was informed by the Senior Officer Force "B" that she should make every endeavour to capture the Iranian gunboats without firing, which in the event she did. Similar instructions were given to all units of the force in relation to the floating

dock, in case any of them were subsequently detailed to take it. The *Cockchafer* also took this dock without a shot being fired.

H.M.I.S. *Lawrence* embarked a detachment of 3/10 Baluch Regiment at Basra at 1600 on 10 August. The detachment consisted of "A" and "D" companies, in all 10 officers and 256 other ranks. At 2030 the *Lawrence* left the jetty and proceeded quietly down the Shatt-al-Arab. At 1100 on 11 August, the *Lawrence* rendezvoused with H.M.S. *Kanimbla* in midocean and transferred the army detachment. Between 11 and 16 August force "B" went through a period of intensive training. On 16 August force "B" was able to report as being fully trained and equipped and from this time until the operation took place on 25 August, intensive training was relaxed. On the night of 23 August orders were received that zero hour would be 0410 Iraqi time, on 25 August.

All units rendezvoused with the *Kanimbla* and were berthed alongside by noon on 24 August, when the final instructions were issued. Dhow "8" was the first unit to sail at 1332, the R.A.F. launch "20" and Tug "A" left at 1500, and the remainder of the force got under way at 2015. In addition to reconnaissance, Dhow "8" and the R.A.F. Launch "20" were provided with a number of Hurricane lanterns which they were to attach to any unlighted buoys in the Channel of Khor Musa. In the event, all buoys and beacons were alight. Dhow "8" however, kept the Senior Officer Force "B" fully informed by wireless of all navigational matters including the characteristics of the lights which were not in accordance with the blue print.

The passage up the Khor Musa was uneventful in good visibility, the *Kanimbla* leading with Tugs "A" and "B" on either bow. Astern of her were the *Cockchafer*, the *Lawrence*, the *Snapdragon* and the *Arthur Cavenagh*. All buoys up to 13 were passed within 5 minutes of the time laid down in the time table. The *Kanimbla*, leading the force, reached buoy 13 at 1315. There she fell behind in accordance with the plan. The ebb-tide was then at least two knots and so all units were ordered to proceed ahead at 10 knots. But the R.A.F. Launch 80 and *Arthur Cavenagh* were unable to make this speed and were consequently late in arriving at their objectives. The *Lawrence* now forged ahead overhauling the two tugs and also the *Cockchafer* in the last lap, thus getting her nose in front⁶. At 0415 the *Lawrence* proceeded alongside and boarded the Iranian

⁶ See Appendix VIII for the approach tracks for ships which took part in this operation. For details of ships in Operation Bishop see Appendix IX.

gunboats *Karkas* and *Shahbaaz*. No resistance was encountered due to the complete surprise. By 0430 without incurring any casualties, the gunboats were captured and the crews were put under guard. A floating dock belonging to the Iranian Government was captured intact by the *Cockchafer*.

Meanwhile, the Axis merchant ships which had been prepared for scuttling got the alarm. Explosions were heard and fires were seen to break out almost simultaneously in the three Italian ships and two of the German ships. This was the sight which awaited the *Kanimbla* as she turned into the straight in the wake of the flotilla. Two American ships were berthed in the available space by the jetty. The *Kanimbla* went straight to the Italian tanker *Bronte* which was blazing fiercely amid ships, while the *Lawrence* after leaving the prize crews aboard the captured gunboats was ordered to proceed to the *Caboto*. The *Lawrence* captured the *Caboto* and put a party of officers and ratings on board to fight the fire. She then went alongside the *Barbara* and ran hoses and a chain of buckets to deal with a fierce fire under her bridge. By 0745 both ships had been saved from destruction.

With all hoses rigged, the *Kanimbla* poured water into the *Bronte*. The latter was filled with stacks of kerosene tanks which were bursting all over the place, and the heat was terrific. A foothold was obtained after the first rush of flames was beaten back, and in some three hours the ship was saved. The *Kanimbla* had 16 officers and 111 men away on boarding parties round the harbour and the *Bronte's* fire was tackled by the few remaining.

The German ship *Weissenfels* was lost. The German preparations were most efficient and it appeared from intelligence obtained later that the Chief Engineer of the *Weissenfels* had taken action to scuttle and fire his ship before the alarm came from the *Hohenfels*.

The situation ashore at 1700 on 25 August, was calm. The position afloat was as follows :—The *Marienfels* and the *Wildenfels* anchored and apparently were ready to be brought forward. The *Sturmfels* was at anchor, with No. 4 hold full of corn still smouldering. There was a possibility that this corn saturated with fire-fighting water might swell and burst the bulkheads. There was also the fear that the fire might spontaneously ignite the *Barbara*, *Caboto* and *Bronte*. The *Hohenfels* was beached $1\frac{1}{2}^{\circ}$ by the stern with a list of 3° to starboard. The *Weissenfels* was still burning furiously, all oil fires apparently out, but in a condition impossible to get into her to shut valves etc. She sank in deep water at 0500 on 26 August.

Naval casualties on the Indian side were nil. Despite much fire fighting, there were no serious burns and only a few minor injuries were sustained. The absence of casualties and the partial success of the operation may be ascribed to the following causes :—

(a) The sound training given to the boarding parties. (b) The skill and determination with which the ships were boarded and, in particular, the magnificent way in which the engine-room boarding parties penetrated into the depths of ships which were filling with water and in some cases were on fire. (c) The high morale and spirit of the force as a whole. (d) The success of the communications inside the force, with so small a personnel. Every Signaller and Telegraphist was continuously on watch from the time of sailing on 24 August, until at least 1700 on the next day. Between 1600 on 24 August and 1200 on 25 August, no less than 141 signals were passed between *Kanimbla* and units of Force "B" by V/S and W/T.

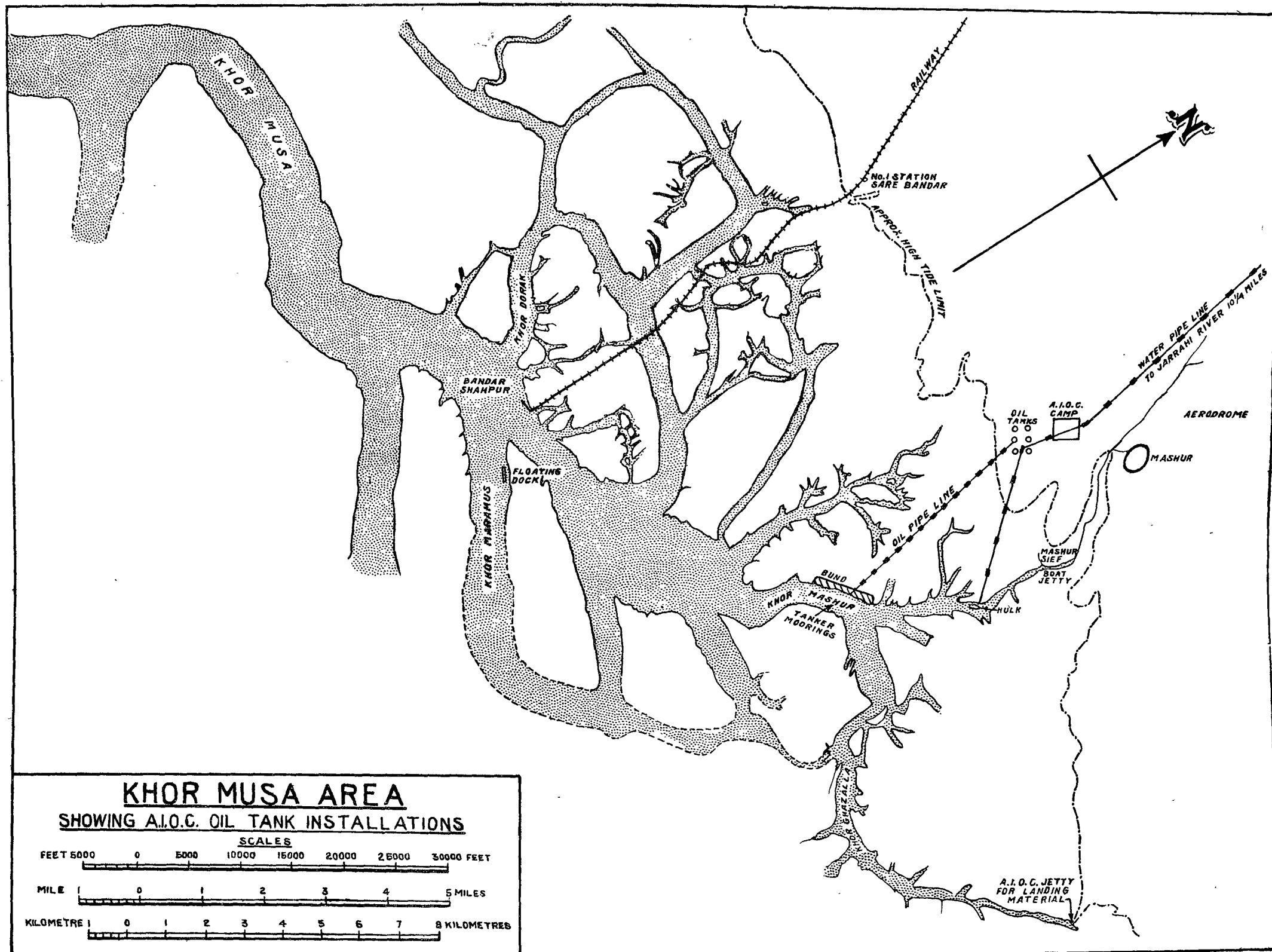
The seven captured Axis merchant vessels at Bandar Shahpur—The *Wildenfels*, *Sturmfels*, *Marianfels* (German), the *Caboto*, *Bronte*, *Hilda* and *Barbara* (Italian)—were first taken to Basra and thence to India where they arrived in September 1941.

Capture of Bandar Shahpur

Having achieved the first object of the operation viz. the capture of Axis shipping in the harbour of Bandar Shahpur, the Allies sought to capture the port and town of Bandar Shahpur. The Commanding Officer, H.M.I.S. *Kanimbla* (Captain G.H. Adams, R.N.) commanded the whole operation. He also exercised operational control of aircraft which were detailed to co-operate. They were :—

244	Squadron	4 Vincents (Army Co-operation)
31	Bomber Transport Squadron	Douglas (Air Borne Troops)
26	Fighter Squadron	Hurricanes and Gladiators
84	Bomber Squadron	Blenheims

The senior Military Officer was Major Maxwell (3/10 Baluch Regiment). Lieutenant Bowen, R.N.R., took up the duties of Naval Officer-in-Charge, Bandar Shahpur after the operation during which he acted as the Sea Transport Officer and Principal Beachmaster at the landing.



Bandar Shahpur is situated 30 miles up the Khor Musa Channel and lies on the seaward edge of a large mud flat which extends back some 7 miles before what may properly be called the mainland is reached. At high tide this mud flat is flooded to a depth of two to three feet. The port is on the deep water channel and consists of a reclaimed area about one mile long and 400 yards wide at its widest point and filled to a height of 5 to 8 feet above the natural level of the mud bank. In 1940 about 80 ships entered and cleared in the foreign trade of the port while 5 German and 3 Italian ships had taken permanent refuge since the outbreak of war.

The Iranian naval organisation consisted of two Iranian naval sloops anchored in the channel, a naval barracks which was being built with a handful of naval ratings living on shore. Apart from the sloops the only defence force consisted of an infantry detachment of about 75 men who were quartered in three blue-painted wooden huts. There were no defence works.

The port was the terminus of the Iranian State Railway which ran north by a single track to Ahwaz, Teheran and Bandar Shah on the Caspian Sea. On the raised area there were four main railway sidings and a Y for turning locomotives. The main line ran length-wise through that area and led out on to a jetty over a wooden viaduct some 300 yards long. The original jetty was also a timber construction but an extension on steel piles was added giving a total length of 850 feet. The jetty carried a triple track but its capacity was limited by a single track approach.

After the *Kanimbla* had put out the fire from the blazing Italian tanker *Bronte* and her berthing parties secured the latter, she opened fire on a train pulling out of Bandar Shahpur, and suspected to carry some German tourists. Some straddles were obtained but there was no direct hit and the train got away intact. Very soon a decision to land troops without naval support was taken as there were no signs of military activity on shore.

Major Maxwell, of 3/10 Baluch Regiment, embarked with "A" Company and a couple of Bren gun detachments for the jetty about a mile away. "D" Company was to follow as the second wave on the return of the tug. "A" Company seized its bridgehead and went on to the Railway Station and its large sheds without any opposition. There was an exchange of fire with some Iranian soldiers dying of wounds. One local fireman and one coolie were killed in the loco shed.

The town of Bandar Shahpur was occupied on 25 August and by that evening the whole area as far as the Railway Causeway over Khor Dorak, $2\frac{1}{2}$ miles from the town had been occupied. A defence post was established at the Causeway and direct telephone communication from it to the bridge of the *Kanimbla* alongside the jetty was established. So flat was the land that the whole of the area was plainly visible from the *Kanimbla's* bridge. There was not a tree in sight. The ground was sand and silt.

On 26 August, the Anglo-Iranian Oil Company camp at Mashur was visited by the Officer Commanding Troops. From information received on that date, it appeared likely that Iranian police and landforce might attempt to arrest the small British community at the camp. The Officer Commanding Troops carried out reconnaissance over a radius of some 20 miles on 28 August.

On receiving a signal from the Senior Naval Officer Persian Gulf, it was made known generally on shore that an armistice had been signed on the forenoon of 29 August 1941. All ships present were dressed with mast head flags, with Iranian ensign at the fore. A number of local officials were entertained by the *Kanimbla* and the health of the King of England and the Shah of Persia was drunk.

Iranian Gun-Boats and Axis Merchant Ships

The Iranian gunboats were four in number. They were Italian built and of about 700 tons each, mounting two 3-inch guns on the forecastle on either side with a speed of 15, engines were Fiat Diesel. Their condition was mechanically poor.

The *Karkas* and *Shahbaaz* were captured by H.M.I.S. *Lawrence*. These two ships, in charge of two officers from the *Lawrence* operated under their own captured officers during 25 August and morning of the 26th. On the last date they both went to Mahur, one carrying Officer Commanding Troops and the other to obtain divers and diving gear for the *Hohenfels*.

At noon on 26 August rumours of the operations at Abadan filtered through to the officers and men of these gunboats. As soon as they realised that their compatriots had put up some form of resistance, they requested to be relieved of the necessity of running their ships. Though measures to de-militarise the gunboats had been taken on the forenoon of 25 August, the armament was again put into full working order and they were commissioned as His Majesty's Ships—tenders to the *Kanimbla*.

The senior Iranian officer was Captain Fosuni, who was retained in the *Kanimbla* as a prisoner of war. Lieutenant Dabcer

Ali of the Iranian Navy was persuaded to remain on board as a pilot for the first trip to Basrah and back. Seven Iranian ratings were retained as care and maintenance party, with these exceptions, all officers and men of these gunboats numbering 97 were sent to Basrah in the *Karkas*, as prisoners of war leaving Bandar Shahpur on 26 August.

Despite every endeavour of the *Kanimbla's* attenuated engine-room staff, the main engines of the *Shahbaaz* failed to work satisfactorily until October and both ships required lengthy overhaul. The Italian engineer attached to these two ships of the Iranian Navy, was taken prisoner of war and retained to work in the engine-room of these gunboats. He did a great deal to keep the engines of the *Karkas* working and to repair the engine of the *Shahbaaz*. On 22 September 1941 the port propeller of the *Karkas* was damaged underweigh.

On 3 October 1941 both gunboats were docked in the floating Dock and undocked on 4 October after both propellers of the *Karkas* and *Shahbaaz* had been exchanged. An attempt to straighten the tips of the bent propeller resulted in one tip being broken off and abandoned. The general condition of the dock was good. Both the gunboats were simultaneously docked and undocked.

Other craft captured from Iranian Navy were (a) one small diesel tug re-named "V" for victory (b) three Lighters of approximately 200 tons each and one of approximately 70 tons.

All the German and Italian ships had been prepared for scuttling. The German ships were prepared for scuttling by opening the main inlet valve and placing H.E. Charges where they would cause the most damage to the ships watertight structure. As a secondary measure, arrangements were made to fire the cargo-holds. Long lengths of Bickford's type fuse were used for the ignition of the H.E. Charges. These were led to the upper deck in the vicinity of the Quartermaster's watch keeping station, boxes of matches and short lights were always kept handy for the Quartermaster. These fuses took on an average 15 minutes to burn down to the charge. Firing of ships was done by kerosene oil and tar being splashed over dunnage in the holds. This was lighted either by black powder bombs or short lights. An ample supply of both was kept in each ship.

The Italians apparently sabotaged their ships with electrically fired T.N.T. and gelignite charges through a temporary switch-board and batteries. Italian incendiarism was confined to stacks

of 10 gallon kerosene drums interspersed with powder bombs fitted with varying lengths of Bickford's fuse.

In this evolution time was the most important factor and the Chief Engineer of the German ship *Hohenfels* said some days later, "If you had given us more time, we would all have joined the *Weissenfels*". The boarding parties had, however, done some fast and efficient work and in many cases had ripped off the ignited fuses before they reached the explosive and incendiary charges.

The *Weissenfels* was the only German ship which successfully scuttled herself by a combination of incendiarism and demolition. The boarding party was never able to get into the engine-room on account of the heat and smoke. It reported hearing five charges explode. The other German ships which prepared to scuttle themselves were the *Wildenfels*, *Sturmfels*, *Marienfels* and the Flag-ship of the German Hansa Fleet *Hohenfels*. The Italian ships which followed suit were the *Caboto*, *Bronte* and *Barbara*. The boarding parties were in each case in time to prevent scuttling or damage done to their ships.

The German and Italian ships adopted entirely different methods of sabotage. No attempt was made by the Italians to sink their vessels but merely to damage the machinery with demolition charges and the superstructure and accommodation by incendiarism. By contrast the German ships were very thoroughly prepared for sinking by the opening of all the main ballast lines and sea inlet valves. The German plan obviously could not be applied until the last moment whereas the Italian method of sabotaging the main and auxiliary machinery could be done at any time. There was some evidence that the Italians did, in fact, damage their machinery prior to 25 August when the British attack on Bandar Shahpur was made.

The Role of Investigator, Lawrence and Lilavati

H.M.I.S. *Investigator* sailed from Bombay on 20 Jan. 1941 for Khor and joined the Persian Gulf Division on 24 January. She maintained the Khor Kuwai patrol from 5 May 1941 and was almost continuously at sea till 19 June when she was relieved by H.M.S. *Falmouth*. She left Karachi on 15 July and reached Bahrein on the 20th. Owing to operational requirements she had to be sent back to Khor Kuwai patrol. During the occupation of Iran in August 1941 H.M.I.S. *Investigator* and other H.M.I. ships were employed in covering the landing of troops at Abadan, Khurramshahr and Bandar Shahpur and stood by to evacuate British residents from Bushire.

The good work done by Indian sloops and other escort vessels of the Royal Indian Navy during World War II was appreciated. During Operation "Countenance" in the capture of Abadan, Royal Indian Naval personnel were called upon to perform important duties. In one of the actions Lieutenant N. Krishnan of the Royal Indian Navy of H.M.I.S. *Investigator* won the Distinguished Service Cross. He was second-in-command of an 80-ton tug, manned by twelve Indian naval ratings and intended to provide transport for landing parties. As events turned out, those on board the tug came in also for a spell of hard fighting.

While warships belonging to the Royal Navy and the Royal Indian Navy were engaging the larger vessels of the Axis near the shore, the tug was lying in midstream. Her complement had instructions not to fire on the machine gun positions ashore lest the R.I.N. landing parties be injured. Suddenly, an armed tug of the Axis began "to do a real bit of target practice" at the Royal Indian Navy tug, which at once replied suitably. The hostile force had taken cover between decks and was also firing from portholes, while their opponents had little protection. Accordingly, it was decided to board the craft, and four ratings were detailed off to fix bayonets and follow Lieutenant Krishnan into her, while the three remaining seamen and the Stoker Petty Officer were to give covering fire.

The tug was brought alongside a barge which was secured to the hostile tug. Lieutenant Krishnan boarded the barge. Immediately, the craft he had just left was carried clear by the current, and he found himself alone, with three men in the barge firing at him and snipers busy from the tug. He wounded two of the men in the barge; the third dropped his rifle. He then boarded the tug, which seemed to provide better cover. Meanwhile, the rest of the party had come alongside again, and followed him aboard.

A fierce struggle now began in the dark. The hostile force had divided itself into several parties. The after-hatch was rammed down on those below, and a Seaman posted to guard it. While the rest of the party was engaging gunmen at point blank range, Lieutenant Krishnan dashed across the deck and covered an open door through which most of the firing came. The boarding party then closed the watertight doors to the forward hold and lower decks and bolted them, thus completely isolating their adversaries below. While some of his men engaged the hostile force forward, Lieutenant Krishnan, with the aid of a torch, inspected hold No.1 aft. It looked empty, but as he turned to go, he saw something move in the corner. Firing and flashing the torch at the same time, he saw

three men armed with rifles. The noise of battle had evidently unnerved them, and they surrendered.

Since the boarding party had now been sufficiently reinforced to take the offensive, and as little was being gained by exchanging fire with the men opposite, they charged another of the lairs on the upper deck, and after a scuffle eight armed men surrendered.

In the meanwhile continuous fire was coming up the forward hatchway, and one of the Indian Petty Officers nearly became a casualty. The hold was in pitch darkness, and the only means of entry was rope ladder covered by the hostile force. Accordingly, Lieutenant Krishnan tried a ruse. He shouted : "Here's a bomb. Come up or I will kill you". Pandemonium at once broke out below; give rifles were banged on the deck, and the men trooped up to surrender.

The bridge was reported clear, but a man in officer's uniform observed there earlier had smuggled himself into a cabin where he waited to shoot at anybody passing. Warned by a shout from a rating accompanying him, Lieutenant Krishnan fired with his revolver at the same time as the hostile officer did, wounding him in the neck and arm. With that incident resistance ended. A report was sent to the Senior Officer, and the Royal Indian Navy tug proceeded alongside one of the warships, where medical attention was given to the wounded.

The Indian seamen gallantly led by an Indian officer had shown great courage, coolness and initiative against superior numbers and only one was injured. On the other side, four were killed and 20 captured.

H.M.I.S. Lawrence

H.M.I.S. *Lawrence* (Lt. Cdr. H. E. Passmore-Edwards) with the British gunboat H.M.S. *Cockchafer* and the Australian armed merchant cruiser H.M.S. *Kanimbla* in company led the assault on Bandar Shahpur in the early morning hours of 25 August 1941. The increasing activity of German agents and the urgent need to open a southern supply route to the valiant Red Army had made necessary the Allied occupation of Persia, which was completed in a few days with a minimum of bloodshed.

It was known that five German and three Italian merchant ships were lying at Bandar Shahpur, sheltering from the Allied Naval Forces blockading the Persian Gulf. While Indian troops were put ashore from the *Kanimbla*, the *Lawrence* was instructed to



Lieut. N. Krishnan, D.S.C., R.I.N.



Lieut. (E) D. Shankar, D.S.C., R.I.N.

take possession of the Axis ships and prevent their crew from scuttling them. Speed was essential if that task was to be successfully accomplished.

The following is a brief account of the exploits of H.M.I.S. *Lawrence* at Bandar Shahpur, of which the Indian Navy is justly proud. Many of its Ship's Company were decorated for gallantry and outstanding work during this operation. As soon as the *Lawrence* rounded the last bend of the river leading to the port, she was sighted by a look-out on one of the German ships. The warning was given and almost immediately smoke and fire began to pour from two of the German ships and all three Italian ships. Obviously the Germans were attempting to scuttle their ships. Each ship of the attacking force had its own objective, that of the *Lawrence* being the Iranian gun-boats, the *Karkas* and *Shahbaaz*. As the *Lawrence* approached the gun-boats, she slowed down and gently moved up alongside one of them. Lt. Coltham R.I.N. (the Executive Officer), at once boarded, followed by Able Seaman Mushkur Ali, Engineer S/Lt. Harper and two or three stokers. But before others could also accompany, the tide took the ship away and the party was left alone. Nevertheless it did splendid work and in a quarter of an hour captured the two gunboats. Officers in one of them were sleeping aft when the *Lawrence* came alongside. They woke up presently but were covered by Able Seaman Mushkur Ali with his pistol and neutralised. Lieut. Coltham then went to the Mess Deck and managed to lock up all the Iranians there. By that time S/Lt. Harper had secured the engine-rooms of the two ships and conducted a thorough search for any sabotage material. He then captured the Harbour Master's launch as it came alongside and proceeded to carry out despatch duties with it. Not content, he took some advance troops to the wharf and captured some Iranian Liverymen as they returned from night leave. Mr. Loynes, Gunner, Petty Officer Kaka Bawoo and Greaser Miran Chandu all helped him considerably in his exploits.

The capture of the two gunboats was effected completely by surprise so that no resistance was met with and no casualties incurred. But while H.M.I.S. *Lawrence* was thus engaged, fires were observed on the Axis vessels in the vicinity, followed by explosions. She was ordered to get alongside the Italian ship *Caboto* and to prevent her from scuttling herself. As she secured alongside, her boarding party got busy with hoses and fire-extinguishers but the fire had got so strong a hold on the ship that, in order to save herself, the *Lawrence* had to leave. Her officers and men did excellent work in this opera-

tion. After leaving the *Caboto*, the *Lawrence* went alongside the *Barbara* and proceeded to organise hoses and a chain of buckets to put down the fierce fire under the bridge. The work was soon done but not before she had put many of her officers and men on board the other vessels. After about two hours, she returned to the *Caboto* and found that the fires had been brought under control.

She then went alongside the German vessel *Weissenfels* which was blazing away fiercely amid ships. She could not be saved and eventually she sank. The *Lawrence* then proceeded to clear the jetty. With the launch captured on board the gunboats, she helped in landing troops. About noon the *Lawrence* received orders to proceed with all despatch to evacuate British subjects from Bushire and accordingly she left the scene of her valiant labours. During the month of July 1941 she landed troops at Abadan, Khurramshahr and Bandar Shahpur. In September 1941 she went to Basra to land troops and then left for Bombay for refit. After refitting there she was detailed for local naval defence duties.

The Commanding Officer of H.M.I.S. *Lawrence*, Lieutenant Commander H. E. Passmore-Edwards, R.I.N.R., specially commended the following officers and ratings of his ship for their outstanding work during the Persian Gulf operations.

Lieutenant W. G. Coltham, R.I.N. (Executive Officer)

This officer worked very hard in organising the Ship's Company for the operation. He led the party which boarded the Persian gunboats and was the first aboard. He was also prominent aboard the Italian vessel *Caboto*. Later, he took a motor boat to the wharf and requested the U.S.A. vessels to shift berth. He then returned to the Persian gunboat *Shohbaaz*, got it under weigh and carried out several further duties in command of the gunboat. Later he was mentioned in despatches.

Engineer Lieut. D. Shankar, R.I.N.

He boarded the Italian vessel *Caboto*. At considerable risk to himself he went through the blazing bridge deck and captured the crew. He then searched the ship for scuttling charges and was to the fore in fighting the fire. The cool and sensible manner in which he conducted himself was very praiseworthy. He was awarded the Distinguished Service Cross for his gallantry.

Engr. Sub. Lieut. C.L. Bhandari, R.I.N.

This Officer was in charge of the engine room department during the weeks which preceded the operation. During the opera-

tion he was the only Engineer Officer left aboard the *Lawrence*. He worked hard in extinguishing the fires in both the *Caboto* and *Barbara* and was always to be seen operating a hose where the fire was fiercest. For his good work in the operations, he was mentioned in Despatches.

O. No. 1215 Abbas Abdul Ghafur, Ch. Mechanician

He worked hard and for long hours in the Engine room and was at the main valve during the operation. A man whose example was always of great value. He was mentioned in Despatches.

O. No. 2491 Fazil Illahi, Stoker Petty Officer

He boarded the *Caboto* and himself removed unexploded charges from the E.P. cylinder and condenser. He was mentioned in Despatches.

O. NO. 2642 Kaka Bawoo, Petty Officer (Ty) Q. R. 2

This Petty Officer remained in the Persian gunboats and rendered assistance in getting them under weigh. He was left in the gunboats when the *Lawrence* proceeded to Bushire. He was also a member of the towing party put aboard the *Barbara* for passage to India and worked hard and cheerfully under all circumstances. He was mentioned in Despatches for his good work.

O. No. 3195 Mashkur Ali, Able Seaman Q. R. 3

This rating was the first aboard the Persian gunboats where he did good work in capturing the crew. He was also prominent aboard the *Caboto* doing valuable work with a fire extinguisher. He was awarded the Distinguished Service Medal.

Lastly, the work of the Commanding Officer of the *Lawrence* during the Persian Gulf Operation was thus praised by Acting Captain G. H. Adams, Commanding Officer of H.M.S. *Kanimbla* and also the Senior Officer Force "B" of the Operation:—

"I would further mention the assistance and intelligent co-operation which I received during this period from the Commanding Officer of H.M.I.S. *Lawrence*, Lieutenant Commander H. E. Passmore-Edwards, Royal Indian Naval Reserve, whose sage comments and helpful suggestions led me to place complete confidence in the ability of H.M.I.S. *Lawrence* to carry out her part in the operation with discretion and initiative, a trust which it will be seen was not misplaced. In particular, I would mention the skill which was required to place this unhandy ship alongside two Iranian gunboats

in the tide conditions prevailing, thereby capturing them without a shot being fired.”⁷

Lieutenant Commander H. E. Passmore-Edwards was mentioned in Despatches.

The Lilavati

H.M.I.S. *Lilavati*, an Auxiliary Minesweeper, was engaged in Local Defence duties at Bombay from February to May 1940. After her refit in Bombay, she was transferred on 12 May 1941 for duties in the Persian Gulf. She took part in the General Operation “Dover” whose main object was the occupation of Abadan. To achieve that object three simultaneous operations—“Crackler”, “Marmalade” and “Rapier” were carried out. The naval tasks in these operations were:—

(a) The destruction or capture of the Iranian warships lying near Abadan (b) the transport and landing of troops in the Abadan Refinery Area (c) the support of the landing by gunfire, if required (“Crackler”) (d) the destruction or capture of the Iranian warships lying in or near the entrance to the Karun river and the simultaneous landing of troops to occupy and hold the naval barracks situated on the left bank of the river Karun (“Marmalade”) (e) the capture of Khurramshahr (“Rapier”) (f) the transport and landing of troops at Khazalabad (Khosrowabad) and support of the operation by gunfire, if required (Operation “Mopup”).

H.M.I.S. *Lilavati* along with H.M.S. *Seabelle*, H.M.S. *Shoreham*, H.M.S. *Zenobia*, H.M.S. *Ihsan*, 6 *Eurekas*, Dhows R.A.F. 43 and 20 took part in Operation “Crackler.” H.M.S. *Falmouth*, H.M.A.S. *Yarra*, Launch *Baeleka* and R.A.F. Brooke Launch were in Operation “Marmalade”, and H.M.I.S. *Lawrence*, H.M.S. *Snapdragon* and H.M.S. *Arthur Cavanagh* in Operation “Rapier”. The Operations, as a whole were under the joint command of the Senior Naval Officer, Persian Gulf (Commodore C. M. Graham, R.N.) and Brigadier R. Ie Fleming, the Commander of the 24th Infantry Brigade, embarked in H.M.S. *Seabelle* (Headquarters Ship).

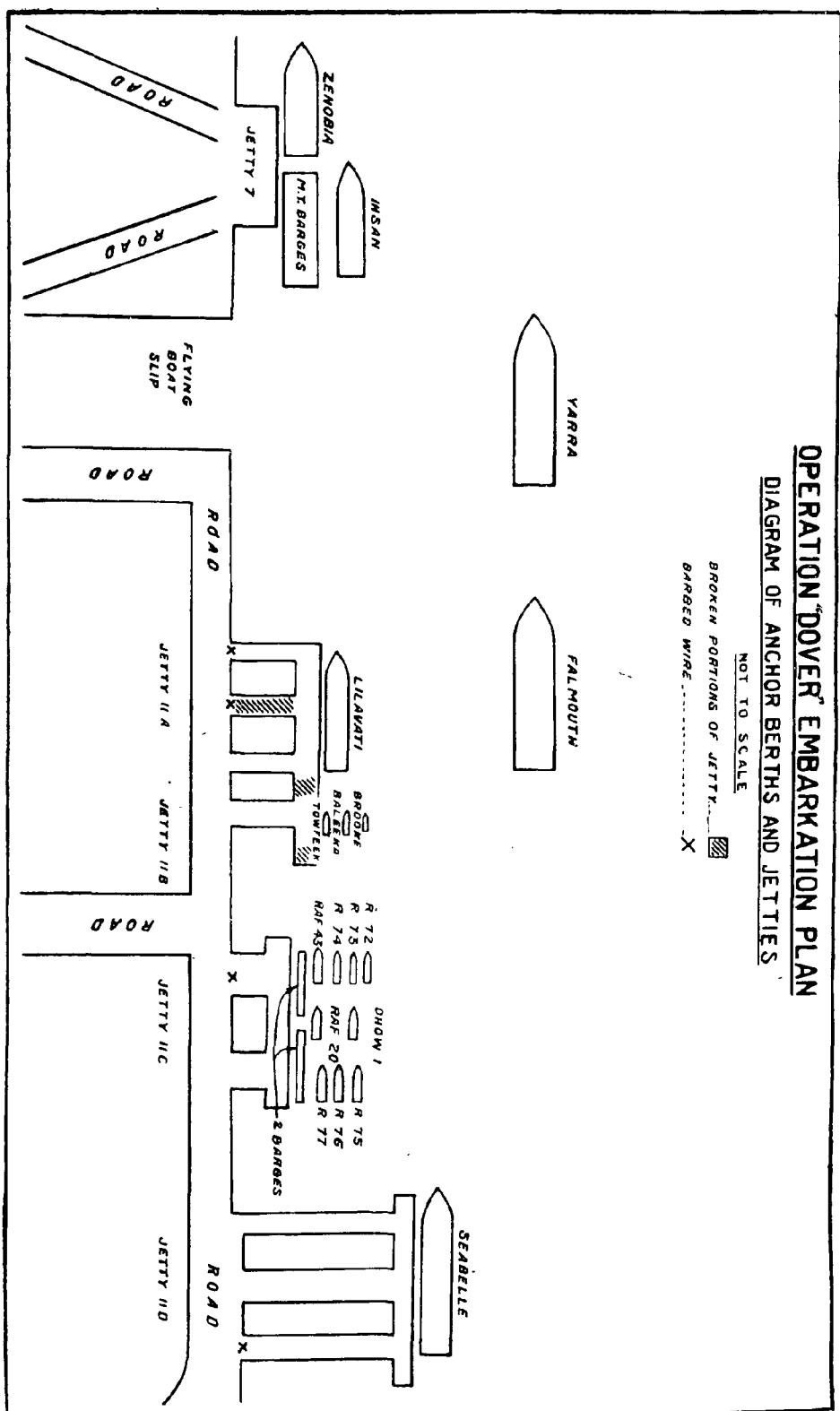
The *Lilavati* (with Lieutenant H. J. Gahan, R.I.N.R., as Officer-in-Charge) was given the task of disembarking 288 men of the 2/6 Rajputana Rifles and 15 men of the 5 Field Company Sappers and Miners from Jetty 11A at 0840. The force was to leave Basra

⁷ Report by Senior Officer Force “B” in H.M.S. *Kanimbla* dated 30th Sept. 1941—File 601/10886/H.

OPERATION "DOVER" EMBARKATION PLAN

DIAGRAM OF ANCHOR BERTHS AND JETTIES

NOT TO SCALE
 BROKEN PORTIONS OF JETTY. 
 BARBED WIRE. X



and proceed down river in the following order:—

<i>Ihsan</i>	Leave	No 7	Jetty	at	1100
<i>Zenobia</i>	,,	,,	,,	,,	1200
<i>Seabelle</i>	,,	11 D	,,	,,	0040
<i>Lilavati</i>	,,	11 A	,,	,,	0045

On reaching Satan's Gap, the *Ihsan* and *Zenobia* passed through the channel south of Dabbah and Um-Al-Labani islands and maintained station on the starboard beam of the *Seabelle* and *Lilavati* respectively. After passing Seeba, the *Ihsan* and *Zenobia* proceeded direct into Breim Creek and disembarked troops there. The *Seabelle* and *Lilavati* proceeded so as to arrive off Dabbah Spit Buoy at 0245 and 0250 respectively and off Seeba Creek, at 0407 precisely. As the force approached Seeba Creek the *Lilavati* closed up on the *Seabelle* and passed her. The *Shoreham* and *Lilavati* were ordered to proceed to patrol the river between Khurramshahr and Seeba after the troops were disembarked.

During the landing of troops at Abadan two of the *Lilavati's* ratings displayed great courage in the midst of hostile fire. They were O. No. 1465 Ordinary Seaman Ghulam Mohd. Ali and O. No. 595 Ordinary Seaman Sheikh Ali Fakir. Both won the Distinguished Service Medals, and Lieut. H. J. Gahan, of H.M.I. S. *Lilavati*, who was in charge of the Boarding party was mentioned in Despatches. Another rating of the *Lilavati* to win the Distinguished Service Medal for gallant service in the action at Abadan was Leading Seaman Ghulam Ahmed.

H.M.I.S. *Lilavati* remained engaged on the Basra patrol till 30 December 1941. Then she left for Karachi. She reached Karachi on 5 January 1942 and resumed the Local Naval Defence duties.

CHAPTER VI

The Japanese Peril

For many years Japan had dreamed of a great empire in the Pacific Ocean which would include the Philippines, Borneo, Malaya, Burma, East Indies and the Pacific islands as far as the 180th Meridian. This she designated the "Co-prosperity Sphere of Greater East Asia". To it, ultimately, Australia, New Zealand and India might be added. The two main obstacles to this grandiose scheme were the British Naval Base at Singapore and the United States Pacific Fleet based on Pearl Harbour. Japanese strategy, therefore, had to devise a plan whereby the Pacific Fleet would be eliminated long enough to ensure the capture of Singapore.

The years between the two world wars were devoted to preparations. Island bases and landing grounds were developed and contrary to the provisions of the Washington Treaty, naval, air and military preparations proceeded under a degree of secrecy rarely attained even in war time and their intelligence service provided them with reliable information. Japan embarked upon a policy of expansion. The occupation of Manchukuo (1931) was followed by the invasion of China in 1937; by the autumn of 1939 Japan controlled the whole China Coast from the Gulf of Pechili to Hainan—a considerable step towards her ultimate objectives in the south.

The outbreak of the European war in 1939 presented Japan with the prospect of satisfying her ambitions sooner than she had hoped. At the outset, her policy was of neutrality in the European war combined with the prosecution of her own struggle with China. But as German forces advanced in Europe, Japan became eager to strike. Her historic moment came with the fall of France in June 1940. Three months later (25 September), Japanese troops entered French Indo-China. This was the first blow at the strategical equilibrium in the Pacific. By it the Japanese obtained a first class anchorage within 750 miles of Singapore, and air bases from which Malaya might be reached by heavy bombers.

These preparations did not go unnoticed in London, but commitments nearer home were many and pressing and it was not easy to divert forces to the Far East—10,000 miles away—where, at any rate, hostilities had not yet actually broken out. Arrangements were made, however, to strengthen the military

and air forces in Malaya, and the Admiralty planned to base a fleet of seven capital ships, an aircraft carrier, 10 cruisers and 24 destroyers on Singapore, but for various reasons it was not possible for that fleet to arrive there before March 1942. By October 1941, the situation seemed so threatening that it was decided to send the *Prince of Wales* and the *Repulse* to the Far East. Owing to casualties no aircraft carrier was available to accompany them but both ships were faster than any Japanese capital ship and it was hoped that the presence of that powerful raiding force in the Far Eastern waters might possibly deter Japan from declaring war.

Loss of the Prabhavati

On the very day when Japan declared war on the Allies an unforeseen incident occurred, which resulted in the loss of H.M.I.S. *Prabhavati*¹ The cruiser H. M. S. *Glasgow*, reached Colombo on 6 December 1941 from the Mediterranean to join the East Indies Fleet under Admiral Leatham when Japan was about to enter the war. As soon as she had fuelled, watered and victualled, she was detailed to search the entire anchorages of the Laccadive group for suspicious ships and submarines as it was expected that on entering the war, Japan would try to base her supply ships and oilers in the little known atolls of the Laccadive groups to feed her prowling submarines. She embarked a couple of interpreters and left Colombo at 1700. Her orders were to land those interpreters on the various islands and question the local residents regarding the passage of any suspicious ships. On 7 December, she flew off her Walrus five times for searches but nothing was sighted. At about 1530 she arrived at the first of the islands, Kalpini. The inhabitants had nothing to report and she sailed at 1900 for the next island where she expected to stay till about 0800 on 8 December.

On 7 December 1941, it was announced that Japan had declared war and an Admiralty message said that submarines were to be expected in the vicinity. It further stated that four German merchant ships in Marmagoa harbour had refuelled and might make an attempt to get away. The entrance to Goa was guarded by the ships of the Indian Navy. The *Glasgow* was immediately ordered by the Commander-in-Chief East Indies to proceed towards Marmagoa and patrol. Earlier, she had intercepted a message from the *Dipavati*, off Goa, to the effect that she had sighted a submarine which had dived and that she had carried out a depth-charge attack.

¹ Journal of Midshipman K. L. Kulkarni, R.I.N.

Doing about 22 knots the *Glasgow* headed straight for Marmagoa. Her shipping plot was clear except for the *Dipavati*. She was working a two-watch system with half the armament constantly manned. At about 1106 on the 7th, her Starboard look-out sighted a dark object bearing about 080° approximately 3 miles. It was presumed that it was the submarine depthcharged by the *Dipavati* earlier in the day which had probably surfaced to carry out repairs. The silhouette was very low in the water and the object looked very much like a surfaced submarine. There was also a light visible on deck. The *Glasgow* immediately altered course to open out a little and went to General Quarters. She then closed and challenged the ship, but there was no reply. At 1158 the *Glasgow* switched on her searchlights and immediately opened fire with a broadside of twelve-6".

The *Glasgow* ceased firing as she saw smoke belching out of the bridge and the ship began going down by the bows. Searchlights which had been dowsed after the first salvo were switched on again and she closed to pick up survivors. Midshipman K. L. Kulkarni, R.I.N., was the Officer of the Quarter "A" Turret and was rather pleased with the clean shoot. When the searchlights were put on, he saw through the "A" Turret periscope the ship heeling over and slowly sinking and a number of raft-like craft astern of her. Men were in water and waving. He was then ordered to go in a whaler to pick up survivors.

When he approached the men in the water, he was staggered to hear, instead of Japanese or German words, oaths in Hindi, Punjabi and Tamil. It was soon clear that the *Glasgow* had sunk one of the R.I.N. ships. It was H.M.I.S. *Prabhavati* towing some barges to Karachi from Cochin. The tow of the barges had parted and the ship had stopped and was getting out fresh hawsers for towing. With a low hull and a number of barges astern, she had a submarine-like silhouette. She was not on the *Glasgow's* shipping plot at all and they had information that apart from the *Dipavati*, there were no other ships in the vicinity.

The *Prabhavati* soon turned on her side and sank. All the survivors were put on the barges first. There were three barges and one of them also soon sank, having been hit. Of a total complement of 5 officers and 58 ratings, 3 officers and 25 ratings were saved, including the Captain. There were 12 seriously wounded and they were taken in the whaler. Midshipman Kulkarni was ordered to be in Sickbay with the Surgeon Commander to act as interpreter. Every single survivor was wounded in the lower half of his body.

Dead bodies were afloat all over the area. By 0300 all survivors had been picked up and the *Glasgow* proceeded to her patrol area. Early in the morning she steamed south again and sank the remaining Lighters and then steamed for Bombay. The *Glasgow* arrived in Bombay on the 8th at 2130 and landed the survivors. It was one of the most tragic actions of the war.

Attack on Pearl Harbour

To return to the story of the war. On Pearl Harbour, 5,890 miles from Singapore, was based the U. S. Pacific Fleet under Admiral Husband E. Kimmel. It consisted of nine battle ships (one of which was refitting in the U.S.A.), three aircraft carriers, 12 heavy cruisers, 10 light cruisers, 77 destroyers (45 modern, 32 pre-1921) and 31 submarines. At 0800 on 7 December 1941, while negotiations were still in progress in Washington between the special Japanese envoy, Mr. Kurusu, and the American authorities, the Japanese attacked the United States fleet and air forces at Pearl Harbour with carrier-borne aircraft and submarines. The attack was carried out by a force commanded by Vice-Admiral Nagumo. It consisted of 2 battle ships (*Hiyei*, *Kirishima*) 6 aircraft carriers (*Akagi*, *Kaga*, *Hiryu*, *Soryu*, *Zuikaku*, *Shokaku*), 1 cruiser, 2 destroyers, 3 I-class submarines, 3 oilers and a supply ship. The Americans were taken completely by surprise; most of their aircraft were destroyed on the ground, and the fleet was badly damaged which prevented it from exercising any effective influence for six months to come.

Advance over South East Asia

Within a few hours of the attack on Pearl Harbour, the Japanese invaded Malaya (landing at Kota Bharu on the north-east coast), Thailand (which capitulated at once) and Hong Kong and launched their first air raids on Singapore and Manila. The invasion of the Philippines commenced with a landing in Lingayen Gulf, north of Manila, the next day. Two days later (10 December), the *Prince of Wales* and *Repulse* were sunk by air attack during an operation designed to relieve pressure on the army in northern Malaya. The sinking of those two ships was a serious blow to the morale of the Allies in the Far East. It gave the Japanese an undisputed command of the sea in Malayan waters. The next four months witnessed their steady and almost unchecked advance to the south and east.

Fall of Singapore and Invasion of Burma

Singapore dockyard was closed down on 30 January, and the next day the British forces in Malaya commenced to retire towards

Singapore Island. Singapore with its great naval base fell on 15 February, 70 days after Japan entered the war. That very day, the Japanese landed on South-East Sumatra and captured the important oil centre of Palembang. On 27 February the disastrous naval battle of the Java Sea sealed the fate of Java. On 23 March the Japanese extended their control to the eastern part of the Bay of Bengal by the occupation of Port Blair, Andaman Islands.

Meanwhile, the invasion of Burma had been proceeding, and on 8 March—the day before the surrender of Java—Rangoon fell, to be followed on 29 April by the loss of Lashio, the important terminus of the Burma road to China. This marked the high water mark of the Japanese offensive. By 10 May the Indian and British troops had evacuated Burma, escaping to India through Assam.

Escort Duties of "Sutlej" and "Jumna"

During that period of Allied reverses in the Eastern Theatre, most of the available naval forces were employed in escorting convoys to Singapore and sometimes between Australia and Java. The role of the Royal Indian Navy was mainly to assist in the escort of troop convoys to Singapore and in the operations connected with the evacuation from Malaya and Burma. Indian ships the *Sutlej* and the *Jumna* were ordered to proceed direct from the Red Sea to Colombo where they arrived towards the end of December 1941. Both these ships were destined for Eastern waters. After boiler-cleaning, they were soon on their way to Singapore and Batavia, escorting troop convoys in company with cruisers and destroyers of the Royal Navy. In the latter half of January and in February 1942, they carried out escort duties between various ports in the Netherlands East Indies and Singapore, frequently being attacked by Japanese aircraft.

H.M.I.S. *Sutlej* (Captain P. A. Mare, R.I.N.) while lying in Tanjog Priok (which was the name of the port of Batavia) in February 1942, was ordered with other warships to escort a large convoy to Singapore. While going through the narrow Banka Strait on 4 February where the navigable channel was so narrow that hardly any manoeuvre was possible, the *Sutlej* and other warships were heavily attacked by Japanese bombers in flights of nine. They delivered a very fierce attack, bombs falling all around and between the convoy and its escort, but the *Sutlej* and other ships engaged them promptly with all their armament and got their range so effectively that they were compelled to make off immediately. When the Japanese returned from the opposite quarter to renew their attack

with even greater intensity, the ships again succeeded in repelling them.

There was an amusing but not entirely pleasant occurrence connected with that incident. When the Captain of the *Sutlej* looked out of the Chart House porthole immediately after the first attack, the Captain saw one of the gunners leaning back in his strap and waving his hands furiously. Wondering for a moment whether he had been hit, the Captain looked more closely, only to see that he was beating off a cloud of enormous bees. Looking aft, the Captain saw the gunner and his crew all slapping at themselves and similarly engaged with the hostile bees. It was immediately after that, that the Japanese aircraft returned, and in the excitement of the action the bees were able to work their will.

Early next morning the *Sutlej* was ordered to take the fast ships of the convoy on ahead to Singapore. She proceeded accordingly to the Examination Anchorage, where she anchored with her charges. The leading ships of the main body of the convoy drew in sight to the southward, escorted by H.M.A.S. *Yarra* and almost simultaneously Japanese aircraft came over and attacked them heavily. The *Sutlej* engaged these aircraft at extreme range but both the leading ships were hit by bombs. One of these managed to reach the Examination Anchorage, where under the protecting guns of the *Sutlej* she got the fire aboard under control.

Loss of Empress of Asia

Meanwhile the second ship, the *Empress of Asia*, 16,909 tons, was heavily bombed. Three columns of smoke were seen pouring out of her. The *Yarra* closed her quarter and the *Sutlej* also weighed anchor and approached the burning ship. Most of those aboard had taken to water. A few had boats, some rafts, but many were swimming about. Lowering her boats, the *Sutlej* picked up and brought aboard as many as possible. The fire having got complete control of the vessel, there was no hope of saving her. The noise of the explosion of small arms and ammunition was continuous. As she was heavily armed, there was the danger of explosion. Some of the *Sutlej's* officers and ratings went on board, and at great risk to themselves jettisoned the depth charges and ammunition.

Meanwhile everything possible was done in the *Sutlej* for those picked up out of the sea. A great many were found suffering from wounds, burns and shocks. The Mess Deck by the Sick-Bay was cleared out, and there the surgeon and the paymaster and their staff were busy. The surgeon himself dealt with the more

serious cases, whilst those who had to wait their turn or who were less seriously injured were given first-aid dressings until more could be done for them. Fortunately, the *Sutlej* had a good stock of white clothing on board. This was brought up as quickly as possible and all were given dry clothes and made as comfortable as circumstances permitted. The *Sutlej's* men did their best in looking after the survivors.

As the *Empress of Asia* was burning furiously, she had to be abandoned. The fire was so intense that the plating of her hull had started glowing red, and it was obvious that nothing could be done for her. The *Sutlej*, therefore, steamed to Singapore and landed the survivors of this ill-fated ship.

Convoy from Batavia

H.M.I.S. *Jumna* (Commander W.R. Shewring, R.I.N.) returned to Tanjog Priok in Batavia, after evacuating and bombarding Oosthaven in southern Sumatra on 24 February 1942.² She was ordered to berth so as to afford the maximum anti-aircraft protection to a still fairly crowded harbour. Early that same afternoon Tanjog Priok experienced its first air-raid, being attacked by nine Japanese bombers. H.M.S. *Exeter* (Cruiser) and H.M.I.S. *Jumna* opened fire and broke up the formation. In that raid which lasted ten minutes with some pretty hectic shooting, two Japanese planes were destroyed—one by the *Jumna* and the other by the *Exeter*.

During the next four days, the raids continued averaging two a day which kept everybody alert. Although the *Jumna* could claim no further success, she had gained valuable experience in gunnery organisation. Meanwhile, the merchant ships were leaving the port, and by the evening of 27 February very few of them were left. Only the *Yarra*, the Australian sloop, and the *Jumna* were there. At 1030 the Captain informed the ship's company that they were leaving at midnight. H.M.I.S. *Jumna* left Batavia at 1201 on 28 February 1942 followed by H.M.S. *Anking*, H.M.A.S. *Wollongong*, H.M.S.51, R.F.As. *War Sirdar* and *Francol*. H.M.A.S. *Yarra* with R.F.A. *British Judge* joined the convoy 3 miles north of Examination vessel. At 0220 on 28 February the convoy was formed up in single line ahead and proceeded towards Sunda Straits.

² See Appendix X for the *Jumna's* Officers. Engineer Lieutenant P.K. Mukerjee, R.I.N.R. was the Senior Engineer Officer of the ship. He is now Rear Admiral P.K. Mukerjee, I.N., Director General of the Naval Dockyard Expansion Scheme, Bombay.

Day-break found the *Jumna* shepherding a 6-knot convoy of two tankers and H.M.S. *Anking* with the *Varra* in company, through the narrow island channels only about 30 miles from Batavia. By that time, there was some concern about the chances of those ships getting out of the Java Sea as it was known that a strong Japanese naval force was coming down from Banka Strait towards West Java. At 0645 a submarine contact was made, but before the *Jumna* could attack, the submarine surfaced disclosing her Dutch identity. Near that spot, three hours after the *Jumna* and the Convoy passed through, a Japanese force carried out a landing in Benten Bay. As the Japanese force was accompanied by four heavy cruisers and a number of destroyers, the *Jumna* and *Varra* had a narrow escape. At that time, the first Japanese reconnaissance plane passed overhead to be followed shortly by six Navy, Zero fighters. About the same time the reconnaissance sea-planes of the invasion convoy were also sighted, about 30 miles to the north.

Near Toppers Island, air attacks were made on the oiler R.F.A. *British Judge*. The attacks were not pressed home due to the heavy barrage put up by the *Varra* and *Jumna*. The Japanese planes, therefore, turned all their attention to the escorting sloops, particularly the *Jumna* which was attacked incessantly all morning by relays of dive bombers. The *Varra* was short of H.A. ammunition and after the first attack could only fire to defend herself. The *Jumna* which was bombed and machine-gunned was smothered in bomb splinters from near misses and was holed in places. The wireless aerial and some signal halyards were shot away. Otherwise there was no serious damage and no casualties. Her score for the day was three certain and one highly probable aircraft shot (giving her a total of five in four days). The *Varra* shot down one plane.

Four more air attacks were made between 1000 and 1700 that day. At 1800 the *Jumna* and her convoy were clear of the Sunda Strait. Far away at the bottom of the Java Sea four shattered aircraft still lay, an invisible monument to the performance of *Jumna's* guns and to the steadiness of her crew in the ship's first engagement with the Japanese.

Chief Ordnance Artificer, Cajetan Mascarenhas was awarded the Distinguished Service Medal for his part in defending the convoy against the Japanese aircraft which attacked it in the Sunda Strait. The citation in the London Gazette said that he had carried out repairs to guns during dive-bombing and machine-gun attacks, and had shown great devotion to duty. Leading Seaman Khan Mohammed, who displayed skill and initiative in engaging the

Japanese with an Oerlikon gun was also awarded the Distinguished Service Medal. The Gunnery Officer, Lieut. A.J.V.LeCocq, R.I.N.V.R., was decorated with the Distinguished Service Cross and six of the *Jumna's* ratings were mentioned in Despatches, having shown "devotion to duty during heavy and continuous dive-bombing attacks".

Night had set in when the convoy cleared the southern end of the Sunda Strait. At 0745 the *British Judge* was torpedoed. There being no trace of the submarine, H.M.A.S. *Wollongong* was ordered to stand by, while the rest of the convoy proceeded to Tjilatjap. On arrival off Tjilatjap at 1100 on 2 March the *Yarra* and the convoy were ordered to proceed to Freemantle while the *Jumna* was to proceed to Colombo.

On the afternoon of 3 March 1942, one hundred and eighty miles or so north-west by north from the Japanese force, H.M.A.S. *Yarra* and her convoy, steering south south-east took survivors of the merchant ship *Parigi* sunk by the Japanese on the 1st. At 0630 on 4 March the *Yarra's* clanging alarm rattles were heard as she sighted to the north north-east of Kondo's three heavy cruisers and two destroyers. In spite of the best efforts of the *Yarra's* Commanding Officer, Lieut-Commander Rankin, to engage the Japanese ships, the *Yarra* and her convoy were smashed and sunk by gunfire. Of the *Yarra's* 34 survivors all except one were ratings.

Jumna Reaches Colombo

The Captain of the *Jumna* received news of a large Japanese force operating 250 miles due south of Tjilatjap. With the knowledge also of heavy units coming down the Sunda Strait, he decided to go fairly close to Christmas Island and then westwards and on to Ceylon. The *Jumna* was only 45 miles north of Cocos Islands when she read a general signal saying that the convoy was being bombarded by Japanese raiders and therefore headed north. Four days later (6 March 1942) she arrived in Colombo where she learned that she had been reported damaged ten days before and as no further news was heard, had been presumed lost. In actual fact the *Jumna* was the only ship of the "China Force" inside the Java Sea which survived to tell the tale.

On 13 March, the *Jumna* arrived in Bombay to undergo repairs. On her return to Indian waters, her Commanding Officer received a message from Vice-Admiral Sir Herbert Fitzherbert, Flag Officer Commanding the Royal Indian Navy, conveying his heartiest congratulations on the "first class show that *Jumna* put

up on February 24th and 28th” when she was in action at Batavia and Sunda Strait. The message added “We are all extremely proud of you”.

Escort Duties in the Bay of Bengal

The *Jumna* was under repairs in Bombay till 25 April 1942. Then she sailed on escort duty to Colombo. She sailed from Colombo on 3 May to escort the rock breaker *Nautilus* and arrived at Trincomalee on 8 May towing her. Then she sailed on 14 May arriving at Colombo on the 16th for escort duties in and out of that port. She was based there till 19 June when she sailed for Bombay.

The *Sutlej* was on escort duty in the Bay of Bengal till the end of January 1942 when she was detained in the ABDA³ area where she remained during the first part of the month. She arrived at Trincomalee on 21 February and left on the 26th for Calcutta. She came back again to Colombo and sailed on 12 March for Calcutta. She was placed at the disposal of the Commodore, Burma Coast. She was on operational duties in the Burma Coast Area till 14 April when she sailed from Calcutta for Colombo to take over escort duties between Colombo and Addu Atoll. The *Sutlej* sailed from Diego Garcia early in May for Colombo arriving on 8 May. On 12 May she sailed for Cocos Islands returning to Colombo on 22 May. On the 23rd she sailed for Bombay arriving on 30 May for refit. She left Bombay on 6 July and for the rest of the month was on escort duties around Colombo.

Engagements off Rangoon and Akyab

Early in February 1942 British and Indian forces were hard-pressed in Burma. By 22 February these forces had been forced back behind the Sittang River. The threat to Rangoon was developing. Reinforcements were vital, but the dock situation in Rangoon did not permit the acceptance of the complete convoy of 17 ships due there on 21 February by the General Officer Commanding the Burma Coast. Japanese raids had scared all labour from the docks and in fact a large part of the civilian population had left the city, thereby causing great difficulty in maintaining essential services. Most of the convoy had, therefore, to be sent to India, but the 7th Armoured Brigade, one Indian Artillery Regiment, a British battalion and an Auxiliary Pioneer Battalion were landed. H.M.I.S. *Hindustan* (Commander I.B.W. Heanly, R.I.N.) provided escort for this part of the convoy which proceeded to the port of Rangoon.

³American, British, Dutch, Australian.

On the night of 20 February, the convoy was piloted up the Rangoon river in complete darkness. The *Hindustan* remained at the river mouth on anti-submarine patrol until the forenoon when she proceeded upstream. But owing to an air raid on the port she had to remain under way and did not anchor until sunset. All civilians had evacuated the city. Tanks and other equipment remained unloaded by the army, while R.I.N. personnel assisted in the warehouses and manned local launches.

On 5 March, while patrolling at the mouth of the Rangoon River in company with motor launches manned by Burma R.N.V.R. the *Hindustan* sighted a hostile force near China Bakir attempting to infiltrate in Sampans. Owing to the mud flats she could not approach close enough, but one of the launches captured a boat containing a Japanese officer and 55 armed men of the "Free Burman Army".

Early next morning, while it was still half dark, the *Hindustan* noticed three large landing craft about to run on the beach and fired on them, sinking one. On seeing figures running towards the scrub, fire was directed along the foreshore. Wherever the shells exploded groups of Japanese soldiers were seen to scatter and it was believed several casualties were caused among them. The two other hostile landing crafts were later discovered drifting and empty. On the following day, a boat which suddenly appeared out of the fog near the same spot was destroyed with all hands.

With the rapid deterioration in the military situation, decision was taken on 7 March to evacuate Rangoon. The policy was to withdraw all forces northwards to continue resistance in north Burma in conjunction with the Chinese. This was a difficult operation since the Japanese had blocked the Rangoon-Prome road about 26 miles north of Rangoon. However, Indian forces eventually broke through with the help of tanks though not without heavy losses.

The *Hindustan* provided parties for the destruction of port facilities and for demolishing the docks by means of depth charges. She proved very useful as anti-aircraft guard and in establishing wireless communication between the town and the outside world. After completing the demolition of the docks and oil refineries, a number of small craft carrying evacuees were sailed under the escort of H.M.I.S. *Hindustan* and the United States destroyer *Allen*. Up to the last moment parties from the *Hindustan* were employed in scuttling small river vessels to prevent their falling into Japanese hands as well as to obstruct the entry of Japanese ships into the har-

bour. The convoy arrived safely at Calcutta on 11 March. Meanwhile, Rangoon had been occupied by the Japanese on 9 March.

With the fall of Rangoon, the position of Akyab and Kyaukpyu on the coast became precarious. The port of Akyab in Arakan was used for evacuating troops and civilians. Many warships took part in these operations, the R.I.N. being represented by the sloops *Indus* and *Sutlej* and the auxiliary vessels *Haideri*, *St. Anthony*, *Sandoway* and *Selama*.

Loss of the Indus

On 5 and 6 April 1942 Akyab was heavily bombed. H.M.I.S. *Indus* (Commander J. E. N. Coope, R.I.N.) was in Akyab harbour. Four Indian officers against an officer complement of twelve were borne in this ship. She was lying at anchor when three formations of Japanese aircraft coming from different directions attacked her. The first formation dropped a stick of bombs so close to her that it was once thought she had been hit. When, however, the second and the third formations came on and attacked together, the ship did not have much of a chance. She received at least two direct hits, one of them on the engine room, causing severe damage. Another hit caused the ship to settle by the stern. Distress signals were made to H.M.I.S. *St. Anthony* which was nearby but before any help could reach the *Indus* had capsized. She had put up a very gallant fight against immense odds and went down fighting. By a miracle no lives were lost. An eye witness rightly said that in the face of an attack by 27 bombers and 18 fighters, "we considered we were lucky to have lost only one ship." There was no way of saving the ship and she sank very soon. Officers and crew were taken on board H.M.I.S. *St. Anthony* (Lieutenant T.R.V. Bird, R.I.N.R.). On 7 April *St. Anthony* ran aground on the rocks at the entrance to Akyab harbour. She was refloated and subsequently left Akyab for Calcutta on 18 April 1942.

H.M.I.S. "Sandoway" and H.M.I.S. "Haideri"

H.M.I.S. *Sandoway* (Lieutenant C.B. Sutherland, R.I.N.R.) encountered Japanese forces in the Kaladan River on 3 May and opened fire with her 12-pounder. Machine-gun fire from the Japanese craft hit the wireless transmitter which was put out of action. Shortly afterwards, she was attacked and machine-gunned by four Japanese aircraft. The same morning 27 bombers attacked Akyab, and in the afternoon six fighters attacked the harbour. On 4 May the *Sandoway* left Akyab for Chittagong—the last ships to leave the port before it fell. With repeated bombings, the approach of

Japanese land forces and the stirring up of the local population, it had become impossible to hold Akyab and so the garrison was withdrawn on 4 May.

In the final stages of the withdrawal, H.M.I.S *Haideri* (Lieutenant S. Gill, R.I.N.R.), engaged Japanese batteries in their advance on the port of Akyab. She was a small vessel of 1,500 tons employed for war-time minesweeping and patrol duties.

After the occupation of Rangoon by the Japanese their troops poured northward up the Irrawaddy Valley. H.M.I.S. *Haideri* found herself in the "front line". She had many jobs to do. One was reconnaissance; another was delivering water and coal to the ships that were supplying and transporting Allied troops in forward areas.

One day, on patrol about 20 miles to the westward of Baronga Island she encountered a country craft carrying 134 Indian evacuees many of whom were women and children. The serang and crew of this craft had been murdered by the Japanese and not one of the 134 souls aboard had the slightest knowledge of navigation. But, rather than remain in Japanese territory, they cast off and put to sea. Luck was with them, although by the time the *Haideri* hove in sight, they were exhausted by hunger and exposure. The *Haideri* took them in tow and they were soon put ashore in Akyab.

On 3 May 1942 the *Haideri* set out on her first offensive mission. She was detailed to bombard Japanese positions along a nine-mile stretch of the Kaladan River. The Japanese saw her coming and sent out seven dive bombers. At 1400 the planes roared down on the *Haideri* out of the blue and for the next 30 minutes her fate was uncertain. She wriggled between the bomb splashes twisting and turning as her helm was swung hard a port, then hard a starboard. And all the time anti-aircraft guns were blazing away at the swooping bombers. So great were the columns of water thrown up by near misses that the S.S. *Henrick Jessen*, lying three miles away assumed that the *Haideri* was sunk and sent a rescue launch to pick up the survivors. She was amazed to see the little *Haideri* emerge from the spray and smoke and proceed up the river to carry out her allotted task.

As if, in a fit of revenge, she pounded the Japanese shore positions. To the bomb fragments that littered her deck was added a swiftly mounting pile of empty shell cases, showing her determination to fight to the finish.

Eighteen days later, a brace of Zeroes strafed the *Haideri*, inflicting only minor wounds on some persons. It was a short,

sharp attack and the raiders made off before she could fire back.

Loss of Andaman and Nicobar Islands

The possession of the coastline of Burma greatly strengthened Japan's position in the Bay of Bengal and presented a threat to the Andaman and Nicobar Islands and even to Ceylon and the east coast of India. On 24 February the landing ground at Port Blair, the only important town and port in the Andamans was bombed by the Japanese. During the next few weeks there were frequent reconnaissance flights over the islands. It was during this period that H.M.I.S. *Sophie Marie* was lost after striking a mine. The British garrison was withdrawn on 12 March. Japanese Forces landed on 23 March. Early in April, six United States "Fortresses" attacked Japanese warships at Port Blair, scoring direct hits on a cruiser and a transport. However, the Nicobar Islands were occupied by the Japanese on 13 June.

Japanese Strength in the Bay of Bengal

The later stages of the Burma Campaign were marked by incursions into the Bay of Bengal by Japanese warships and submarines which resulted in the loss of some merchant ships belonging to the Allies. These raids added to the Royal Indian Navy's responsibility of protecting India's coast and shipping. The loss suffered was not great owing to the efficiency of the Naval Staff ashore and personnel afloat. When the Japanese submarines were detected Indian ships went into action to protect the convoys under their charge, and when Japanese aircraft appeared over the coast of Eastern India they met with an effective opposition from naval guns. On 28 January 1942, the paddle steamer *Idar* was shelled by a submarine off the north coast of Ceylon but there were no casualties. She eventually drifted ashore. At least four ships (mostly merchant vessels) were sunk off the east coast during the month. On 5 February 1942 H.M.I.S. *Ramdas* was attacked. During March 1942 several ships were attacked by submarines. On 12 March two Japanese cruisers with other vessels were sighted near Achin Head and on 30 March two Japanese cruisers with five destroyers were sighted off Port Blair.

A number of Japanese submarines operated in Indian waters during April 1942. On 4 April one battleship, two cruisers, 7 destroyers and four other crafts were sighted 350 miles south-east of Ceylon. On 6 April, four Japanese heavy cruisers, one or two aircraft carriers and a number of lighter units were operating in the

Bay of Bengal. These sank 23 Allied merchantships, five of His Majesty's ships and one of His Majesty's Australian ships.

Loss of "Sophie Marie" and "Lady Craddock"

H.M.I.S. *Sophie Marie* and H.M.I.S. *Lady Craddock* were mine-sweepers. The former was stationed in Port Blair for minesweeping duties, and the latter for local naval defence duties at Calcutta at that time. H.M.I.S. *Sophie Marie* was requisitioned for local naval defence at Bombay on 1 September 1939. From 10 October 1939 till 10 June 1941 she was employed on local naval defence duties at Karachi. After refitment she left for Cochin. On 16 July 1941 she ran aground off Cochin and was refloated the next day. On 4 November 1941 she left Cochin for Colombo and from there went to Calcutta. She proceeded to sea for Pamban on 19 January 1942 and was back in Calcutta after three weeks. On 23 February 1942 she left Calcutta and arrived at Port Blair on the 27th. Immediately on arrival she was berthed alongside the Coaling Jetty (to unload 1,000 bags of coal) and instructed by the then Harbour Master to camouflage the ship as a Japanese air-raid was expected. The Japanese came over Port Blair regularly either at 0930 or at 1430.

The same afternoon she sailed for Car Nicobar arriving there the next morning. The same evening she left for Port Blair. At 0900 next morning (1 March) the ship was tied up at Chattam Jetty and had just disembarked the wireless operator and the police sepoy when she was ordered to go out of the harbour and take shelter somewhere along the coast as a precaution against air attack and to return to the harbour only after 1430. The Commanding Officer decided to go south and shelter in the Macpherson Straits. The ship anchored there at about 1100. At 1345 she weighed anchor and was proceeding out of the Straits when there was a loud explosion as if she had hit a mine. The ship started listing to the port and had to be abandoned. The port lifeboat was lowered without any trouble, but the lowering of the starboard one was difficult due to the ship's listing. However, it was finally got into the water by S/Lt. R.P. Rahalkar and S/Lt F.S. Sopher and five ratings. The ship, meanwhile, had listed so much to port that S/Lt. Sopher had to slide down to get from starboard to port and then to step off the boat-deck into the boat.

When the ship started going under, it was seen that its starboard boat too was following her. It was found that the occupants of the boat had forgotten to slip the boat-rope during the panic. But by then, it was too late to do anything. The port lifeboat

waited until the occupants came to the surface and then rowed towards them to pick them up. They had 44 in the boat and rafts tied alongside. They could not take any more and so made towards shore. The tide being on the ebb, the others in the water started drifting out to sea. The port lifeboat landed on the nearest beach (about a mile and a half away) at 1600. S/Lts. Rehalkar and Sopher and five ratings set out to pick up the remaining survivors and had picked up 16 in all from as far as five miles out to sea and then got back to the beach at 0915. They made themselves comfortable for the night after drawing the lifeboat up. The first party landed, had moved further along the coast. The second party joined the former the next morning and learnt that a patrol of six had been sent overland the previous evening to Port Blair to report the unhappy incident. A muster was carried out and it was discovered that a Signaller and a Stoker were missing, neither of whom had been seen by any one from the time the ship hit the mine and sank. Another party of 16 was sent out at 1700 to Port Blair. All they had with them were a barrico of water and a tin of sea-biscuits which were full of weevils. At 1030 on 2 March a launch arrived from Port Blair to collect the survivors, and returned to the port at 1430. The first party that had set out overland arrived the same afternoon whilst the second the following evening after having returned to the beach and taken the lifeboat which had been left behind for such a contingency. They had rowed about 10 miles towards Port Blair before being taken in two by a launch. Only few had suffered serious injuries, the Commanding Officer being one of them. The majority was unhurt. The ship's survivors were looked after by the local authorities for the next 11 days and were finally evacuated to Madras on 13 March aboard the S. S. *Neuralia* escorted by H.M.S. *Enterprise*.

It was later found that a military outpost on Rutland Island had seen H.M.I.S. *Sophie Marie* sinking and heliographed a message across to Port Blair. A Board of Enquiry was held at Madras. The *Sophie Marie* could not be blamed as no warning message regarding the mining of the Macpherson Straits had been received on board. The Japanese occupied the Andamans on 23 March but Commander Waters and a few others were able to escape from Port Blair to India, in a launch.

H.M.I.S. *Lady Craddock*, a fishing trawler of about 80 tons was requisitioned and commissioned at Calcutta on 13 October 1939. After serving there on local naval defence duties till 17 September 1941 she left for Vizagapatam for a few days on patrol. She

returned to Calcutta and resumed her local defence duties which she continued till the next year. She was engaged in minesweeping at Sandheads. On 16 October 1942 she was caught in a severe cyclone wave of thirty feet height while at anchor at Diamond Harbour in River Hooghly, capsized and sank off Haldia River Buoy. The survivors swam ashore after she sank and took shelter on high land and trees.

The Rising Strength of Japanese Sea Power

The Japanese had by then established their operational superiority in the Indian Ocean. In April 1942 five submarines of the "I" class (displacement about 2,000 tons) and two auxiliary cruisers left Penang for the west. The latter acted as supply ships for the submarines and also carried out attacks on merchant ships. During June and July the Japanese submarines worked mainly in the Mozambique Channel where the Allied shipping traffic was dense. In addition, Japanese submarines which were frequenting the coasts of India and Ceylon began to extend their operations to the Gulf of Oman, the Arabian coast, and the Gulf of Aden. Towards the end of 1943 they attacked several ships off Bombay, Calicut and Cochin and sank a number of them off the Malabar Coast.

CHAPTER VII

Home Front—1

Two years of war saw the strength of the Royal Indian Navy expand considerably. On the outbreak of war it had become necessary to increase its size to the utmost and in the shortest possible time. Indian dockyards at once set to work to turn out fast sea-going motor boats for coastal patrol and powerfully armed corvettes and minesweepers for anti-submarine and other duties. Soon every available building slip was occupied. In July 1941 the H.M.I.S. *Travancore* was launched, the first vessel for the Royal Indian Navy to be built in Indian yards, followed in October by the H.M.I.S. *Baroda* while many others were on the stocks. The vessels of this class "Bassett Trawlers" were named, some after various Indian States, others after the chief towns in India, such as Agra, Patna, Lahore. These ships were admirably fitted for minesweeping and patrol duties. There were also built larger ships of the "Bangor" class, used both for minesweeping and anti-submarine duties, motor minesweepers, 72-foot launches, tugs, lifeboats and other craft.

Meanwhile, in spite of her own heavy naval commitments, Great Britain undertook to supply the Indian Navy with some of the larger craft required. Among the vessels then in service or under construction, one class (sloops) were named after the rivers of India, such as the Sutlej, the Jumna, the Narbada and so on. Other naval construction was carried out in Australia. The enormously increased duties imposed on the Royal Indian Navy in connection with minesweeping and patrolling against possible submarines and raiders, and control of contraband, necessitated requisitioning a number of merchant ships also. Many members of the crews of those ships volunteered and were accepted for service. They were brought up to strength by other trained personnel of the R.I.N. and its Reserves. These ships were armed and equipped against mines, underwater, surface and air attacks and put into commission. New naval bases were developed in the ports of Cochin and Vizagapatam, as well as in the older ports of Madras, Karachi, Bombay and Calcutta and from each base the latest anti-submarine and minesweeping craft operated.

The expansion of shipping involved a considerable expansion of personnel also especially technical personnel, so that by the time Italy entered the war in June 1940 the strength of the Royal Indian Navy had increased by nearly 200 per cent, while in 1942 the strength had enhanced to over 600 per cent. This inordinate growth created new and difficult problems of training, which became acute owing to the shortage of qualified instructors and suitable equipment.

Transfer of Naval Headquarters to New Delhi

After eighteen months of war it was realised that the Flag Officer Commanding Royal Indian Navy would have to be stationed in New Delhi, the seat of the Government of India and the Headquarters of the other two Services. Proposals for the transfer of the Naval Headquarters to Delhi or Simla were submitted to the Government of India by FOCRIN on 20 February 1941. Two alternative possibilities were considered: (a) complete transfer of the whole Naval Headquarters with the then existing staff of 23 officers and 35 clerks etc., and (b) transfer of a limited staff only, leaving a proportion of the work to be dealt with in Bombay. As the move had to be rapidly effected and there were difficulties of accommodation at Delhi and Simla, the proposals for transfer were based on the latter alternative only.

Under the arrangement the staff distribution was to be :—

Delhi/Simla

Bombay

Admiral
Secretary
Staff Officer (Plans)
Staff Officer (Operations)
Staff Officer (Gunnery)
Staff Officer (Admiralty)
Staff Officer (Engineering)
Signals Officer
Works Officer
Asstt. Staff Officers 2
Cypher Officers 4
Administrative Officer

Commodore
Captain of the Fleet
Director of Personnel Services
Engineer Captain
Staff Officer (Signals)
Staff Officer (Intelligence)
Staff Officers 2
Equipment Officer
Principal Medical Officer
Assistant to Staff Officers
Cypher Officers
Chief Superintendents.

Government sanction for the moves on the lines proposed above was accorded in February 1941. And the Naval Headquarters moved to New Delhi in March 1941.

March 1941-May 1943

This arrangement was found unsatisfactory as under the existing rules and regulations many problems had to be referred to FOCRIN for his approval or decision, with the result that the planning and operations Staff found themselves forced to deal more and more with matters that were outside their spheres. Hence certain officers, who were stationed at Bombay, and who were nominally supposed to carry out certain specific duties, were brought to Delhi mostly one at a time.

The changes which took place during the period may be briefly described as follows : The Director of Personnel Services was transferred to the Headquarters in March 1942, the Staff Officer Signals in June 1942 and the Equipment Officer also in 1942. The designation of the Engineer Captain at Bombay was altered to Director of Engineering in November 1942. In March 1942 the Staff Officer (Engg.), Equipment Officer, and the Captain of the Fleet were incorporated into one branch known as the Material Branch under the Captain of the Fleet. Subsequently a C.O.F. 2 and Equipment Officer 2 were added. Among new branches formed at the Naval Headquarters were the Legal Branch set up in October 1942 with a Deputy Judge Advocate, and the Accountant Branch formed in January 1943, with the Fleet Accountant Officer maintaining an office in Delhi as well as in Bombay. A Welfare Directorate was sanctioned as part of the Directorate of Personnel Services in February 1943.

Towards the end of May 1943, a Chief Staff Officer was appointed and made responsible to FOCRIN for the direction of the work of all the staff of Naval Headquarters which was modest in size consisting of a Captain of the Fleet, a Director of Personnel Services, Director of Accountant Duties, Operations, Intelligence and Plans Staff Officers, Technical Staff Officers, and in addition, the Naval Law and Admiralty sections. The Principal Medical Officer, Royal Indian Navy and the Director of Reserves were located in Bombay. The Naval Secretary had no separate portfolio but acted as Secretary to the Flag Officer Commanding and Adviser to the Staff generally.

This haphazard growth of the Headquarters failed to meet the growing requirements of the Service nor could it keep pace with its expansion. The failure could be attributed mainly to one factor, namely, lack of suitable officers to hold administrative appointments. The Service commenced the war with no Reserve. There-

fore, it had no persons with any naval background. The appointment of persons to naval administrative posts without sufficient background was not a practical proposition, as a knowledge of the Service, its regulations and requirements, and of the customs and usages of the sea was essential.

In drawing up the new organisation for the Naval Headquarters, the analogy of the Admiralty in the U.K. was followed as closely as possible, but it was not possible to adhere strictly to the Admiralty practice as it was necessary for the Indian naval organisation to correspond generally with the procedure of the Government of India and the existing organisations for the army and the air force so as to achieve smooth collaboration and general uniformity.

Changes in the Method of Recruitment

From 1940 onwards energetic steps were taken to persuade the Government of India to embark on a planned expansion of the Service coupled with a shipbuilding programme. But there was delay in arriving at a decision, and when it was finally taken, the navy was faced with the mighty problem of recruitment and training of the requisite number. The task of securing suitable element for the naval service was made more difficult owing to the competing claims of the army and the air force. The army had a definite advantage, particularly in northern India, owing to the general ignorance of, and indifference towards naval service. The slow and limited growth of the navy in the first two years also contributed to that result. To obtain the numbers required in later years for the navy it became necessary to open up recruitment on an India-wide scale. Large numbers of ratings from Bengal and Southern India were enrolled. Larger number of ratings came from the cities than from the villages of India.

From 1939 up to the end of 1941, two Naval Officers acting independently of any other organisation were responsible for recruitment to the Royal Indian Navy. Later, to obviate any unhealthy competition between the three Services, a joint organisation was established. With it from 1942 every district in India, covered by the machinery of the Inter-Services Recruiting Organisation, became more naval-minded. The Royal Indian Navy employed leaflets and advertising material in important vernaculars. This offset the handicap of the absence of visual naval influence or lack of personal contact. The co-operative spirit between the services in recruiting personnel proved an additional asset for naval recruitment. The elimination of competition between Services achieved

unity of effort, control and economy in establishment and administration. All these factors resulted in a growing response in every district and led to a considerable increase in the recruitment.

The acceleration of the war effort in India, as a result of Japan's aggression in the East, placed heavy demand on the recruiting organisation. This led to the appointment of 25 Assistant Recruiting Officers (Navy). The appointment of a Deputy Director of Recruiting (Navy) in July 1943 enabled the naval staff attached to the Recruiting Directorate to visit the recruiting areas more frequently, thus keeping abreast of developments and progress of recruitment.

In a voluntary system of recruitment, persuasion and personal contact plays an important part. The increased rates of pay in 1942 helped to improve recruitment during 1943-44. No better stimulation to recruitment existed however than the return to his home on leave of the smartly dressed and contented rating.

Urgent requirements for certain standards of personnel were handled by the allotment of priorities. The Royal Indian Navy's requirement of educated personnel at the end of 1943 was so serious that overriding priorities were granted by the Government. As a result, the recruitment of educated personnel improved considerably. It was always difficult to strike a proper balance between quantity and quality. When quantity rose, quality dropped and vice versa. Prior to the advent of the Training Directorate in the Naval Headquarters, the standards of entry were not adhered to strictly in practice, as reliance had to be placed on recruiting authorities exercising their discretion and using as a gauge the varying Indian educational standards. Thereafter, however, the tendency was to standardise and simplify tests for all educated recruits.

At the end of 1943 physical standards, particularly height and weight, were revised in order to extend the scope of recruitment to certain branches, as it was found that the peacetime standards were preventing otherwise suitable persons from joining. The Communications Branch and the Supply and Secretariat Branch were chiefly affected.

There being no such distinction as class composition in the Royal Indian Navy, every encouragement was given to recruiting new types and classes. Once fears regarding disparities in food and standards of welfare were eliminated, the main obstacles to increasing recruitment had been overcome. Recruitment from South India, first begun in 1940, caught on in the last two years, and provided the

requirements in the higher educational grades. It was interesting to observe that after 1943, the Sikhs joined up in large numbers. Garhwali recruitment was also initiated but their lack of education was a limiting factor.

An important feature in recruitment often overlooked, was the time-lag. The dissemination of information about terms and conditions of service took long time to reach the masses. When recruitment for any category was stopped, the effect was like that of "drawing fires". It took two or three months to re-open such recruitment on a successful basis. Experience in the first two years showed that it was never wise to close recruitment to any branch entirely.

The vast size of India and the fact that before the war the Royal Indian Navy itself had no roots from which to draw manpower, made it apparent that the achievements since 1939 and in particular during the first two years were but the first step in a gradual process of making India navy-conscious and navy-proud. Fresh ground was broken and new seed was sown daily, and the soundness of those new connections depended, to a large extent, on the way in which the recruits were handled, treated and trained.

Formation of R.I.N.R., R.I.N.V.R., Fleet Reserve, Etc.

At the end of 1938, the formation of the Royal Indian Naval Reserve (R.I.N.R.) from gentlemen with sea-faring experience, and of the Royal Indian Naval Volunteer Reserve (R.I.N.V.R.) from those with no such experience, was sanctioned. At the beginning of the war there were no R.I.N.R. Officers. There were only 21 Executive and 16 Accountant Officers of the R.I.N.V.R. apart from the regular R.I.N. Officers. The creation of a Royal Indian Fleet Reserve was sanctioned later. It was intended to form this Reserve from ratings retired from active service. There were no men in the Fleet Reserve at the commencement of the war.

The whole administration was carried out by a small staff, duties not specifically provided for, such as those of Squadron Accountant Officer, Judge Advocate etc., being carried out by one or other of the officers in addition to his own duties. This system worked adequately, but was not designed to cope with the volume of expansion that followed. With the outbreak of the war Naval Officers-in-Charge with other Staff Officers were appointed in Bombay, Calcutta, Cochin, Madras and Karachi. Moreover, it became necessary to requisition and to man a number of merchant vessels for mine-sweeping, patrol work etc. No less than 31 such vessels were put

into commission in the first two months of the war. Personnel for them had to be found immediately.

An excellent response to the call for volunteers for the R.I.N.R. came from Indian officers of the Mercantile Marine, most of whom had been cadets of the I.M.M.T.S.*Dufferin*. At the outset much support came from the city of Bombay for the R.I.N.V.R. This was followed by an adequate response throughout the country. The selection of candidates from the Far East was also effected to the Volunteer Reserve.

The trend of in-take of officers during 1942 and 1943 showed steady increase in the proportion of Indian officers entering the Service as compared to officers of non-Indian domicile. During 1944, when 498 officers were selected, only 141 of those were European as against 357 officers of Asian domicile, a ratio of 2.5 Indian officers to 1 European Officer.

Establishment of Selection Boards & their Absorption in the Recruiting Directorate

Before the war, officers for the three Services used to be selected on the result of a competitive examination and an interview conducted by the Federal Public Service Commission. The number of Indian officers thus selected annually before the war was relatively small and no difficulty was experienced in filling the vacancies in this manner. Some time after the outbreak of the war selection for permanent commissions was closed and a system of granting temporary commissions was introduced. The demand for officers, both Indian and British, increased considerably and selection of officers for the three Services was taken over by the respective Service Headquarters. Each Service formed an Interview Board. These boards either called the candidate to one central place or toured round the country in order to interview them. Selection was made on the result of an interview for not more than half an hour by one or more members of the Selection Board. This continued until the beginning of 1942 when it was decided that selection of officers to the three Services should be integrated and carried out by the Directorate of Recruiting in the Adjutant General's Branch at the Army Headquarters.

After this integration the selection of candidates was conducted in two stages (i) preliminary selection by Provincial Selection Boards and (ii) final selection by the Central Interview Boards. While all officers for the army were selected through this integrated organisation, the Royal Indian Navy continued to take in a number

of candidates under their own arrangements and the Royal Indian Air Force appointed a few General Duty Recruiting Officers who were authorised to recommend candidates direct to the Central Interview Boards.

The Provincial Selection Boards were generally presided over by a Senior Civil Officer of the status of a Commissioner of a Division who was assisted by police, military and other civil officers. The method of selection adopted by these Boards was not uniform. Generally speaking, these Boards could devote only one or two days in a month for interview purposes. This sometimes necessitated Boards interviewing candidates in large batches. The final selection of the candidates recommended by the Provincial Selection Boards was made by the Central Interview Boards. These were three in number, one for the north, one for the south and one for the central India. The Central Interview Boards normally consisted of a senior civilian as President and a senior Indian army officer as Vice-President and two co-opted local civilian members.

The system adopted by the Royal Indian Navy for the three types of Commissions is indicated below :—

<i>Course or Entry etc.</i>	<i>Arm/ Branch/ Corps.</i>	<i>Type of Commis- sion</i>	<i>Prelimi- nary Selection</i>	<i>Final Selection</i>	<i>Remarks</i>
Inter- Services Wing	All	Permanent	F.P.S.C. Examina- tion	Services Selection Board	2 Courses a year
Cadet Entry (for training in U.K.)	All	-do-	-do-	-do-	3 times a year but later twice a year
Direct Entry (Commission from the date of appoint- ment.)	All	Short Service for 5 years	N.H.Q.	-do-	Suitable Officers to be absorbed in the regu- lar cadre later.

*Formation of Personnel Selection Boards—Their Work
at Lonavla, Meerut and Bangalore*

Opinion was expressed that a short interview was completely inadequate for testing the suitability of an individual to be an officer.

It suffered from the inherent defect of the personal equation of the interviewer and it was, therefore, impossible to obtain a uniform standard. Moreover, the candidates were not expected to have any confidence in the justice of the system of personal interview. These were considered to be largely responsible for sufficient number of men not offering themselves for commission, and complaints and questions in the Legislative Assembly became frequent. It was also noticed that a large proportion of candidates selected by the method of personal interview failed to qualify for commissions at the Officer Training Schools. In the latter part of 1941, experiments were carried out in England, and a system, calculated to test more satisfactorily the various qualities such as leadership, intelligence, stamina, etc. of the candidates was devised. This system was evolved as a result of considerable amount of research work and was based on scientific methods which had been advocated by psychologists and others for a long time.

The question of adopting the War Office system of selection in India was taken up. As a result of correspondence with the War Office, a team of officers consisting of a Deputy Director of Selection of Personnel at the War Office, two Psychiatrists, two Psychologists and one Military Testing Officer (now known as the Group Testing Officer) arrived in India early in 1943. Considerable doubt was expressed by the War Department in India as well as by the General Headquarters as to whether the application of the British system to Indian candidates would be desirable. The main fear was that it might frighten away the candidates whose number and quality were already falling rapidly. However, it was ultimately decided to establish a separate Selection Board to apply the new technique as an experimental measure. The first Board was opened in Dehra Dun in February 1943. It contained most of the Intelligence Tests, but no Personality Tests and Group Testing. It was described later as "a bit half-baked", but nevertheless, it was a start. A small section to deal with the new technique of selection was also created in the Recruiting Directorate of the General Headquarters.

In March 1943, again a specialist officer and a few psychologists and psychiatrists arrived from the United Kingdom and re-organised the Dehra Dun Board. By mid-April, it was running along more orthodox lines. It was visited by the Defence Consultative Committee, the Adjutant General in India and other prominent authorities. In May, permission was given to form other Boards. In July 1943, it was agreed that all selection of officers for the three Services would be handled by these Boards. The next two months were

spent in raising staff, and in September four Boards were opened, followed by a fifth in November, a sixth in January 1944 and a seventh in March 1944 for the I.A.F. A combined Services Selection Board was opened at Lonavla in June 1944. There were then Boards at Dehra Dun, Rawalpindi, Calcutta, Jubbulpore, Meerut, Bangalore, Manora and Lonavla. A Board was also formed at Dehra Dun for the Women's Auxiliary Corps (India).

In the matter of the other ranks the Personnel Selection Directorate had a rather more difficult task. It arrived in India with all the tests which had been used for British other ranks but it was immediately found that these were valueless in India owing to the language problem, and to the lack of education, especially among army recruits. Consequently, it became necessary to start from the scratch and devise a large new series of tests suitable for application to Indian recruits. Plans were also formulated to set up Boards at H.M.I.S. *Akbar* or at the Recruits Reception Camps. When that took place, the system of recruiting men as Writers, Seamen, Stokers etc. ceased, and all recruits were merely recruits for the navy, who were tested to find out in what direction their aptitudes lay and then drafted to the appropriate Branch Training Establishments.

Early in 1944, it was decided that all officers of the Royal Indian Naval Reserve (R.I.N.R.) and Royal Indian Naval Volunteer Reserve (R.I.N.V.R.) of the rank of Lieutenant and under, should be tested by a Personnel Selection Board and for that purpose the Board at Lonavla was set up. Its aim was partly to obtain full records regarding each officer, and partly to find out which of them would be considered fit to hold Permanent Commission in the R.I.N. after the war. It may be of interest to note that the first Indian Naval Officer to be appointed on the Staff (as Senior Group Testing Officer and then Deputy President) of the Services Selection Board at Lonavla was the then Ag. Lt. Cdr. R.D. Katari, R.I.N.R., who subsequently became Vice Admiral R.D. Katari, Chief of the Naval Staff, Indian Navy.

Recruitment Under National Services Act (European Subjects)

At the outbreak of the war, the R.I.N. was in a favourable situation for the recruiting of European officers to the Reserve. Unfortunately official sanction for filling the vacancies was not available readily; volunteers released from civil employment were unwilling to wait and many gentlemen with yachting experience or engineering qualifications, invaluable for the navy, found their way into the other Services.

During the period 1942-43 permission was obtained from the Adjutant General to secure from the Officers Training Schools volunteers wishing transfer to the Navy. This method provided a large percentage of candidates, but the War Office objected to the transfer to the Navy of European Cadets ex-United Kingdom, hence as far as those were concerned recruitment was stopped.

Commission from the Lower Deck

To encourage young men to enter upon a career in the R.I.N., educational, recreational and various other facilities were provided to the ratings. In addition, a scheme for promotion of Continuous Service ratings to Permanent Commissioned Rank in the Royal Indian Navy was introduced under R.I.N. Instruction No. 84 of 1942. The scheme, however, did not succeed mainly because only one commission was offered per annum to be competed for by Seamen, Signal and Telegraphist ratings, Stoker ratings and Engine Room Artificers, and also because ratings of other branches (*e.g.*) Writers, Ordnance Artificers, Electrical Artificers etc. were not catered for. No rating was promoted under that scheme.

In 1944, another scheme for promotion of Continuous Service, Special Service and 'Hostilities Only' ratings to temporary commissions in the Executive, Special, Engineer, Electrical and Accountant Branches of the Royal Indian Naval Volunteer Reserve was introduced by R.I.N. Instruction No. 125 of 1944. The main qualifications for a candidate for promotion were as follows :—

- (a) must be within the prescribed age limits,
- (b) have passed the educational test,
(Higher Educational Test)
- (c) have completed six months' sea time,
- (d) have passed the Final Passing-out test,
- (e) have been recommended for promotion by the Passing-out Board, and
- (f) have passed the medical test.

In all ten ratings were promoted under this scheme. These were the first commissions ever granted to the Lower Deck and marked an important milestone in the history of the R.I.N.

Out of the ten candidates for commission, six were for the Executive Branch, two for the Supply and Secretariat Branch and one for each of the Engineering and Electrical Branches. Initial training of these candidates was carried out in H.M.I.S. *Akbar*.

During the first month all candidates underwent the same instruction in the duties of an officer and deportment, general seamanship and discipline. At the end of the first month, non-executive candidates left H.M.I.S. *Akbar* to continue their training in specialised subjects at the Accountant Training Establishment and the Mechanical and Electrical Training Establishments. The Executive candidates remained at H.M.I.S. *Akbar* to complete their twelve weeks' course. On passing that course they were all promoted to commissioned rank.

Electrical Branch

An Electrical Branch was sanctioned in 1942. In 1943, recruitment was made from among Indian students at Faraday House, the Civil Electrical Training College, in London. To co-ordinate all matters relating to torpedoes, mining and electrical subjects, a Staff Officer (Torpedo and Mining) was appointed to the Naval Headquarters in November 1943. In March 1944 a Torpedo Officer was appointed for duties on the east coast (on the staff of the Commodore, Bay of Bengal) and one for the west coast (on the staff of the Flag Officer, Bombay). The need for a qualified Electrical Officer at Naval Headquarters became apparent and an Electrical Officer of Commander's rank was loaned by the Admiralty in December 1944. The number of Electrical Officers borne increased from 25 to 58.

Special Branch

In order to permit the employment of officers in naval shore appointments who were specially qualified in a particular sphere or suitable for the executive commission but did not possess a sufficiently high standard of medical fitness, a Special Branch was formed in the Royal Indian Naval Volunteer Reserve in May 1943. The first Indian Officer to join that Branch was Lieut. (Sp) C. B. Sethna, O.B.E., J.P., R.I.N.V.R.

Medical Branch

In 1943 the Medical Branch was formed from the then existing organisations of Indian Medical Service and Indian Medical Department. Up to July 1943 the Principal Medical Officer, Royal Indian Navy, though on the staff of the Naval Headquarters, was located in Bombay and there was no Staff Medical Officer at Naval Headquarters, in New Delhi. In July 1943 the Principal Medical Officer transferred his Headquarters from Bombay to New Delhi. In

November 1943 the appointments of Deputy Principal Medical Officer and Naval Staff Surgeon were created on the staff of the Flag Officer, Bombay. In March 1944 an Assistant Principal Medical Officer was added to the Medical Branch, Naval Headquarters. In September 1944, a Naval Health Officer was appointed to Bombay. The first Principal Medical Officer was Surgeon Captain G. Miller, R.I.N. He was succeeded by Surgeon Captain P.M. Mc. Swiney in January 1945. In March 1943 the strength of the Medical Branch amounted to Medical Officers 45, Sick Berth Attendants 405. In March 1945 the strength had increased to Medical Officers 92, Sick Berth Attendants 607 and Nursing Sisters 19. The first Naval Hospital in India, the Royal Indian Naval Hospital, Sewri, Bombay, containing 250 beds, was opened in May 1943. Expansion by another 100 beds took place within the next year. In 1944 a Dockyard Workers' Families clinic was opened in Hornby Road, Bombay. The popularity and success enjoyed by that clinic was in a large measure due to Dr. S. Gore, the Lady Doctor-in-Charge, who possessed a special knowledge of welfare requirements amongst labour classes in Bombay.

Schoolmasters Branch

Education in the Navy, as distinct from the professional training, began in the service in 1928. In 1935 the total Schoolmaster Cadre was 9. In 1938 the R.I.N. obtained on loan from the Admiralty the services of a Headmaster/Lieutenant. At that time there were Chief Petty Officer Schoolmasters with degree qualifications on very low rates of pay, at the Boys Training Establishment, the Signal School and the Mechanical Training Establishment. It was imperative now to increase the cadre of schoolmasters and to raise their status and their pay. Later in 1941, the cadre was increased to 54 Schoolmasters which included 10 Warrant Schoolmasters. By February 1944, a great advance was made in that sanctions were obtained for a Headmaster/Commander as Deputy Director of Education, one Headmaster/Lieutenant at H.M.I.S. *Bahadur*, one Lieutenant (Sp) Assistant Deputy Director of Education, four Headmasters/Lieutenants (R.I.N.V.R.), 40 Commissioned Warrant Schoolmasters and 180 C.P.O. Schoolmasters and increased rates of pay to C.P.O. Schoolmasters. Much difficulty was experienced in selecting suitable men in 1941-43, but the improvements in status and pay greatly eased the situation. Schoolmasters were borne in Castle Barracks, Mechanical Training Establishments, *Talwar*, *Akbar*, *Hamla*, *Hamla II*, *Machlimar*, *Valsura*, *Bahadur* and *Dilawar*. Others were attached to Recruit Reception Camps at Jhelum,

Meerut, Bangalore etc., and to the Recruiting Organisation itself. There were 10 sea-going appointments, including all sloops.

With the strengthening of the Branch, education within the Service made strides, and at the end of 1944, the R.I.N. Educational Tests compared favourably with those of the Royal Navy, being higher in some respects, whilst the standard throughout the service had risen. An Instructor Branch was added to the then existing Schoolmaster Branch. Both the existing and the newly selected Instructor Officers were eventually appointed to a number of Training Establishments.

Officers of the new Branch ranked as Instructor Lieutenants and Instructor Lieut. Cdrs/Commanders of the R.I.N.V.R. Their uniform had distinctive cloth of light blue between the gold stripes.

Accountant Branch

Early in 1943, it became apparent that the Royal Indian Navy was noticeably deficient in the services of a well-organised and well-trained Accountant Branch to carry out duties in connection with pay, victualling, clothing, stores etc., duties particularly essential for the smooth running of the business side of a naval service. This Branch was practically non-existent before the war, and those officers and men who volunteered from civil occupations had no one of experience to guide and instruct them. The result was that accounts were getting into a muddle, and Commanding Officers were becoming submerged in a stream of queries and objections with which they were unable to cope. There were also no trained or experienced Secretaries or Accountant Officers to assist them, and the situation was becoming serious. The Admiralty, therefore, agreed to loan a Senior Accountant Officer, to re-organise the Branch and produce a curriculum of training and an orderly system of accounting. This move proved to be very beneficial, and resulted in an all-round improvement of the Branch. Selection of officers and recruitment of men received special attention. Although the establishment of a permanent cadre of officers and men in this Branch was then (1944) under consideration, steps were taken to build up the organisation on sound lines and to earmark personnel whose services were required for retention after the war. The intake of ratings left much to be desired. A small and steady flow was nevertheless forthcoming, and an energetic recruiting drive was launched. A training establishment was set up in Bombay at Fort Barracks. Other measures taken to provide for an efficient organisation were (a) the establishment of a separate Directorate at Naval Headquarters

and the appointment of travelling Staff Officers to inspect accounts on the west and east coasts, (b) improvements in the conditions of service and advancement of officers and men, (c) separation of officers' cooks from ships' cooks, (d) separation of Writer ratings from Stores ratings.

A centralised system of pay accounting was worked out and it was intended to apply that to the pay accounts of all Royal Indian Navy Officers and men as soon as the necessary office accommodation, staff and equipment were provided. To conform with the Admiralty practice, the title of the Accountant Branch was altered in 1944 to Supply and Secretariat Branch and officers and men were re-designated accordingly. The uniform of the officers had the distinctive cloth of white between the gold stripes. By the end of 1944 the Branch had been established on a satisfactory basis. Attention to matters such as pay, food and leisure are three factors that count most in the maintenance of morale. Neglect of these matters has in the past led to disaster. These now became the peculiar responsibility of the Supply and Secretariat Branch.

Training of Officers—H.M.I.S. Feroze

Reference has been made in an earlier chapter about the difficulties of training Reserve Officers at the outbreak of war. There was no Officers' Training School. "There was no accommodation in the Barracks for Officers under training, some of whom were accommodated in the R.I.N. Mess and some of whom lived out in private billets. The whole position was unsatisfactory; there was no mess life and officers dispersed to private life after working hours each day".¹ All courses for the trainee Officers were then each of three weeks' duration only, except the Anti-Submarine Courses which were of one week. In 1941 part of the training was transferred to Castle Barracks. In May 1943 the duration of courses except Anti-Gas and Divisional was increased to four weeks. Reserve Executive Officers received a month's Seasmanship, a month's Navigation and Divisional and Anti-Gas Courses at Castle Barracks, while Signals, Anti-Submarine, Torpedo and Gunnery Courses were carried out at the Specialist Schools.

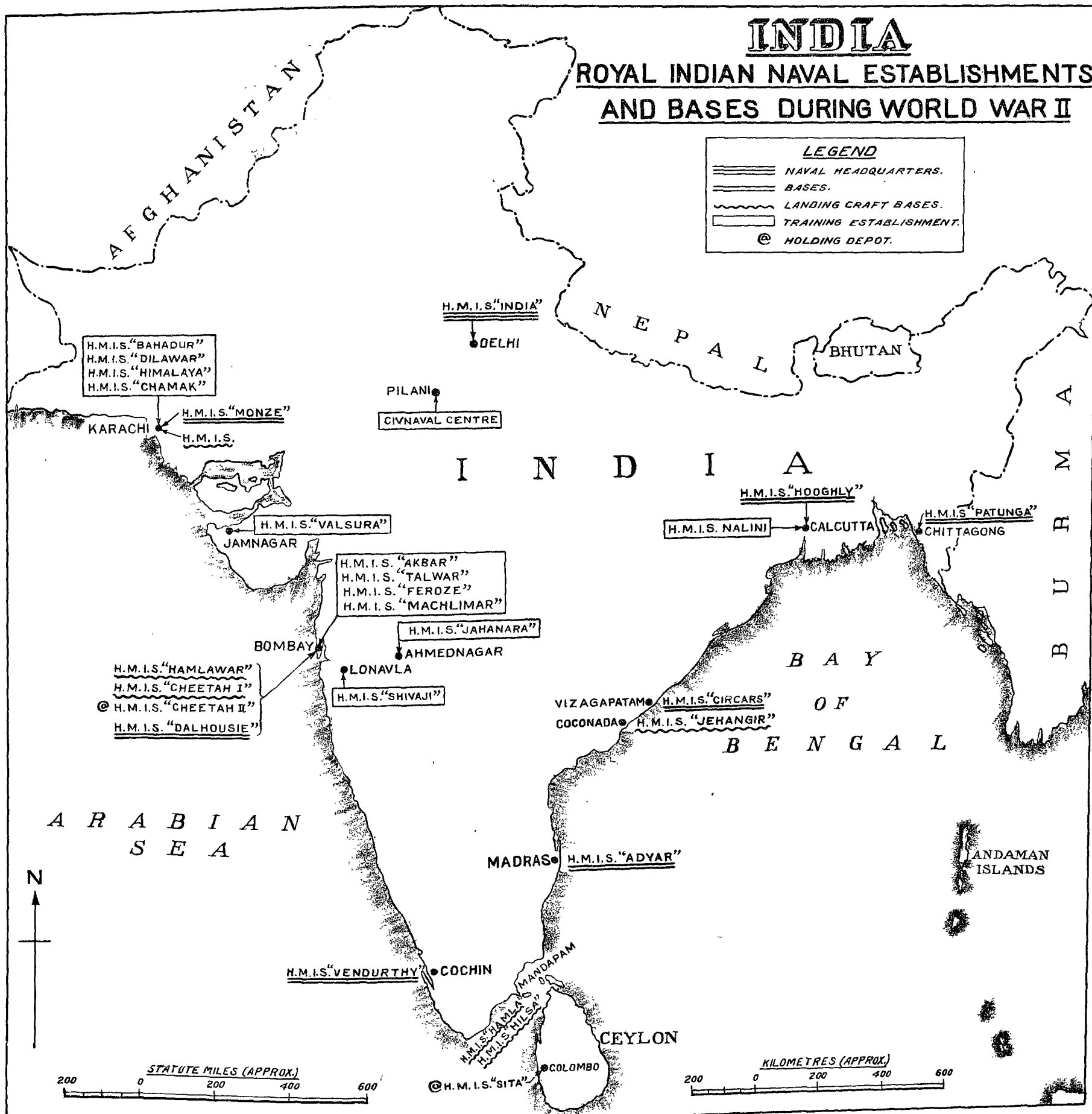
In November 1943, the situation improved substantially with the commissioning of H.M.I.S. *Feroze*. This was a building on Malabar Hill, Bombay, and had formerly been the temporary location of H.M.I.S. *Himalaya*. It followed as far as possible the

¹ R.I.N. Memorandum—OSD/F6

INDIA

ROYAL INDIAN NAVAL ESTABLISHMENTS AND BASES DURING WORLD WAR II

LEGEND	
	NAVAL HEADQUARTERS.
	BASES.
	LANDING CRAFT BASES.
	TRAINING ESTABLISHMENT.
	HOLDING DEPOT.



lines on which H.M.S. *King Alfred* and H.M.S. *Good Hope* were run. Officers were accommodated on the premises, and thus became subject to a more continuous Service environment. All officers entering the R.I.N. were required to do at *Feroze* at least four weeks' Divisional Course and to undergo courses in Urdu, Physical Training etc. Other courses were also carried out either at *Feroze* or at the Specialist Establishment concerned.

During 1944 there was close collaboration between the Director of Recruiting, Selection of Personnel Directorate (both at Meerut) and Naval Headquarters concerning the application of 'selection of personnel' methods and selection of officers of the Royal Indian Navy, to ensure better quality of candidates for the Service. The fundamental weakness in the system of entry of officers however remained. Unlike the Indian Air Force and the Indian Army, officer candidates for the Royal Indian Navy entered on a temporary commission as officers, and once in, there were no severe penalties attaching to failures in their course, and the Service was committed to retaining them once they had been confirmed. Courses were held for Warrant Officers and for Lower Deck Personnel selected for promotion to commissioned rank. The total accommodation at H.M.I.S. *Feroze* on V. J. Day was for 200 officers and 200 ratings.

Other Training Establishments

Other Training Establishments for Officers were² :—

H.M.I.S. *Akbar*, Kolshet, Bombay. Here Divisional Courses for candidates for temporary R.I.N.V.R. Commissions (full course of 12 weeks for Executive candidates) and Divisional Courses for Warrant Schoolmasters (ex-Chief Petty Officer Schoolmaster) were conducted.

H.M.I.S. *Himalaya*, Karachi. In April 1943, as it was no longer possible to continue Gunnery Training in the overcrowded Bombay Dockyard area, the Royal Indian Naval Gunnery School was temporarily established in a large leased house known as "Ill Palazzo" on Malabar Hill, Bombay. This was a make-shift arrangement until the school could be accommodated at its new site in Karachi. The instruction given at Malabar Hill was largely for practical firings at sea owing to lack of facilities. One of the Navy's most ardent admirers, Honorary Lieutenant Commander Sir Dinshaw Petit, Baronet, R.I.N.V.R., placed a portion of his residence at Malabar Hill at the disposal of the Royal

Indian Navy. A number of typical close-range guns were immediately mounted and practical anti-aircraft firing practice became possible under his supervision. Very few low-angle full-calibre practice firings were carried out in Bombay during that period owing to the non-existence of a Gunnery School firing ship and to the fact that other suitable ships were being continuously employed on convoy and other operational duties and were consequently not available. During 1943, rapid progress was made at Karachi in the completion of the new Gunnery School and the opening ceremony of H.M.I.S. *Himalaya* was performed by Vice-Admiral Godfrey, Flag Officer Commanding Royal Indian Navy, on 26 November 1943.

H.M.I.S. *Himalaya* was probably the most modern naval gunnery school of its type in existence outside the British Isles. It was equipped to train officers and ratings in all aspects of gunnery upto 4-inch guns and modern sloops. A firing point of 350 feet in length was provided for practical high angle and low angle firings to seaward. At the end of 1944, H.M.I.S. *Lawrence* was allocated to H.M.I.S. *Himalaya* as a Gunnery School Firing Ship.

Long and short gunnery ("G") courses were started in H.M.I.S. *Himalaya*. But, in order to provide suitable officers to man the ships and the gunnery establishment of the Royal Indian Navy, the policy of deputing Lieutenants, Royal Indian Navy, to specialise in gunnery in H.M.S. *Excellent* (Whale Island) continued. Nine R.I.N. Officers received training in H.M.S. *Excellent* while eighteen Reserve Officers qualified in H.M.I.S. *Himalaya*. Apart from the normal service training programme undertaken, H.M.I.S. *Himalaya* trained a number of Bombardment Liaison Officers and Forward Observation Officers of the Royal Artillery for duties with the British Pacific and East Indies Fleets.

H.M.I.S. Talwar, Colaba, Bombay

This was commissioned in the latter part of 1943 and trained mostly Communication ratings. It was known as the Signal School or the Colaba School. Later, it undertook Radar Officers' Long and Short Communication Courses. It also gave training to WRINS (Women's Royal Indian Naval Service) Officers. Some Instructors were loaned by the Admiralty but the majority were R.I.N.V.R. Officers who had received training previously in this branch.

H.M.I.S. Machlimar

Enough has already been said to indicate the acute shortage of accommodation with which Training Establishments were faced in

the earlier war years. The Anti-Submarine School, when first opened in the Dockyard in July 1939, also suffered from the same limitation. Transferred to Castle Barracks in 1941, it eventually carried out a further move to Varsova, 19 miles from Bombay, where a modern school building was constructed. Instruction began there in April 1943, the School being commissioned as H.M.I.S. *Machlimar*.

To meet the Japanese submarine offensive efficient anti-submarine training was organised. H.M.I.S. *Machlimar* had equipment sufficient so enable it to teach the highest anti-submarine course for officers and ratings in all types of Asdicsets fitted in the Royal Navy, Royal Indian Navy and the Dominion Navies. Instruction closely followed the syllabus of H.M.S. *Osprey*, the anti-submarine school in Britain. The Officers' Long Asdic course lasted five months whilst all officers were required to undergo a three weeks' short course, and it was possible to train 220 officers and ratings at any one time. However, the policy continued for R.I.N. officers to be sent to the United Kingdom for long courses, mainly to obtain up-to-date anti-submarine knowledge on problems under research and for liaison purposes with the Royal Navy.

H.M.I.S. *Machlimar* was sanctioned as a joint enterprise with the Royal Navy, the intention being to train a certain number of Royal Navy ratings there. However, owing mainly to administrative problems peculiar to the Eastern Fleet, the Royal Navy part of the school could not work in full strength. During the final stages of the war, no changes were made in H.M.I.S. *Machlimar*. The school had attached to it for training purposes the old Dutch Submarine K-11. Although useful for want of something better, the vessel was obsolete and frequently out of use. H.M.I.S. *Ramdas* was attached as Tender to the *Machlimar* in 1943. In 1945, H.M.I.S. *Gondwana* became the Anti-Submarine Training Ship and H.D.M.L. 1084 was attached to H.M.I.S. *Machlimar* for similar duties. During the summer of 1945 some difficulty was experienced in carrying out anti-submarine training at sea as accommodation for the crew of a Royal Navy or Dutch submarine was not available in Bombay or on the Kathiawar Coast during the monsoon.

Facilities for anti-submarine training also existed in the major ports of India. In Bombay, an Anti-Submarine Tactical Training Unit was established on lines similar to the Western Approaches Tactical Unit at Liverpool. Officers of ships equipped with anti-submarine weapons were trained in the latest tactics of under-water

warfare and courses were kept constantly up-to-date. The Naval Headquarters undertook the printing of "Instruction for Installation Publications for the Eastern Theatre". Negatives and sample copies were received from the United Kingdom and reproduced in Delhi for distribution in India and to the East Indies stations.

H.M.I.S. *Chamak*. Until June 1943 the Royal Indian Navy had no qualified Radar Officers. Training was carried out at the Signal School with one Type 286 set and an incomplete 285 set, the instructor being a Warrant Telegraphist who himself had no specialised training in these matters. Later, a qualified Radar Officer was obtained from the Admiralty and he imparted instruction, but the general standard of those passing out was not adequate. Subsequently, 2 R.I.N. officers who had qualified in South Africa joined the instructional staff. In November 1943, when the old sloop *Cornwallis* was commissioned as a tender to *Talwar*, it was fitted with such radar apparatus as was available.

In 1944, it was decided to build a new Radar School at Manora as the site of the Signal School (H.M.I.S. *Talwar*) was found to be unsuitable for radar training. The new school—H.M.I.S. *Chamak* was to be fitted with all radar sets in use in the R.I.N. vessels together with workshops both for overhaul and for the training of radio mechanics in the upkeep and maintenance of radar units. The school was expected to have the newest testing equipment, teach fighter direction, and contain the Action Information Centre. Construction was delayed, but she was finally commissioned in June 1945 and all radar training was concentrated there. Further, extension was sanctioned at the end of the war to accommodate the latest radar and plotting equipment.

In August H.M.I.S. *Madras* was allocated as radar training ship, and after three months' conversion, made her first radar training cruise. At the end of the war she was in the process of being refitted with the latest radar equipment found in sloops and with an Action Information Centre of the sloop type. H.M.I.S. *Karachi*, a Basset trawler based on Karachi for local duties, was frequently employed on radar training and H.D.M.L.s 1261 and 1262 were also allotted for those duties.

The main difficulties in radar training were acute shortage of instructors and lack of equipment. In 1944 two Petty Officers (Radar) Royal Navy were lent to the Royal Indian Navy as Instructors whilst two R.I.N.V.R. officers were in the United Kingdom undergoing a radar course. Considerable difficulty, however, continued

to be experienced in the provision of Instructors. The Admiralty was approached but it was also in a similar situation and was unable to spare additional staff. Eventually ten Instructors were loaned and arrangements were made for the secondment to the R.I.N. of a small number of R.N.V.R. Radar officers to replace personnel lost by demobilisation.

In June 1945, H.M.I.S. *Chamak* was commissioned. In September the whole situation greatly improved. Through the generosity of the Headquarters, Base Air Force, South-East Asia, arrangements were made for a section of the No. 2 School of Air Force Technical Training, Ameerpet to be placed at the disposal of the Royal Indian Navy and for instructor and instructional equipment to be provided. Results from their school were excellent, and a high standard was maintained.

H.M.I.S. Hamla, H.M.I.S. Hamlawar and H.M.I.S. Jehangir

The Royal Indian Navy Landing Craft training began in November 1942, H.M.I.S. *Hamla* being commissioned at Mandapam (on the extreme southern promontory of India), on 1 January 1943. The Landing Craft wing was formed largely by officers and men transferred from the army. The camp had accommodation for 298 officers, 3,846 men and with additional tented accommodation for another 800 men. In April 1943 the first classes of trainees were half way through their four to five month preliminary training in H.M.I.S. *Hamla*. In June 1943, the first batches of the *Hamla* product, formed into flotillas, moved to Bombay for their advanced training in the Royal Navy Establishment, H.M.S. *Salsette*. On completion of those courses men were transferred to Landing Ship Infantry *El Hind*, *Barpeta* and *Llanstephen Castle* for flotilla training from ships and additional night landing. At the end of 1943, the flotillas in *Salsette* were attached to Force "G" and were joined by their maintenance parties, trained in the Landing Craft Base at Sassoon Dock, Bombay. That base was entirely manned and run by the Royal Indian Navy then. It was extended and improved. It was later taken over by the Royal Navy. Early in 1944, Force "G" left India leaving the Royal Indian Navy flotillas and units in India to carry out combined training with the army at the two Combined Training Centres at Madh (Maud) and Coconada. At that time the Headquarters Establishment and Depot, H.M.I.S. *Hamla*, moved to Bombay area.

No. 1 Combined Training Centre was situated on Madh Island, some 3 miles south of Marve. At Marve, the Naval Camp to

accommodate the crews of the Landing Craft engaged in naval training was established. This establishment, later commissioned as H.M.I.S. *Hamlawar*, originally consisted of three Landing Craft Flotillas, the personnel being accommodated in tents and old huts. The *Hamlawar* was eventually built up to an establishment of 120 officers and 1,200 men, housed in good buildings on a really fine site. The camp was handed over to the Royal Marines when the Royal Indian Flotillas operating there were required for operations in the Arakan.

No. 2. Combined Training Centre had, meanwhile, been started at Coconada on the east coast of India, some 80 miles south of Vizagapatam. A Naval Camp was built at the mouth of Coconada Canal to accommodate the crews of, and provide maintenance facilities for, the craft engaged in army training. This establishment, commissioned as H.M.I.S. *Jehangir*, was originally intended to be manned by Royal Navy crews, but as these were not available, this commitment was also undertaken by the Royal Indian Navy in April 1944, with some three flotillas then unemployed. In November, when H.M.I.S. *Hamlawar* was handed over, it was decided that the R.I.N. would provide crews for the Naval Camp for 2 Combined Training Centre in so far as future operational requirements permitted. Early in 1945, an officer Training Flotilla and two Ratings Flotillas were formed in H.M.I.S. *Jehangir* to give initial training in Landing Craft with a view to making up for operational wastage.

General

The composition of the Landing Craft by end of 1944 was as follows:—

In the Arakan:—

5 squadrons, comprising 16 flotillas, Minor Landing Crafts, 6 flotillas L.C.A. (Landing Craft Assault), 8 flotillas L.C.P. (Landing Craft Personnel).

One Beach Commando

Two Landing Craft Recovery Units

One Naval Bombardment Troop

One Naval Beach Signal Section

Advanced Administrative and Maintenance Parties

In India:—

The Ships' companies of H.M.I.S. *Hamla* (Depot) and H.M.I.S. *Jehangir*, three Training Flotillas, one Beach Commando and a portion of the technical personnel of the Royal Navy Landing Craft Base at Sassoon Docks.

The total strength of the wing on 1 February 1945 was:—

Officers —345

Ratings —4,030 (of whom 230 JCOs and 1,779 ratings were ex-Army).

In general, the crews of the Landing Craft were composed of ex-army personnel and the technical and administrative personnel drawn from the Services. The distribution, in mid-February, was approximately as follows:—

	<i>Officers</i>	<i>Ratings</i>
Operational (Arakan)	246	2,320
Army Training (H. M. I. S. <i>Jehangir</i>)	32	430
Naval Training and Depot Administration (H.M.I.S. <i>Hamla</i>)	61	1,000
Landing Craft Base, Sassoon Docks	15	230
Inter Services Exhibition, Field Gun Crews	—	50

The Landing Craft Wing, as a whole, was administered from April 1944 by the Senior Officer, Landing Craft Wing (SOLWING), with Headquarters in H.M.I.S. *Hamla* at Varsova, near Bombay. When the greater part of the personnel of the Landing Craft Wing moved to the Arakan, the Senior Officer, Landing Craft Wing established his Advanced Headquarters in Akyab, while his Rear Headquarters remained in H.M.I.S. *Hamla* located in buildings vacated by H.M.I.S. *Khanjar*. These buildings—mainly old commandeered sanatoria—did not prove satisfactory. Hence H.M.I.S. *Hamla* was moved to the new quarters in Wavell Lines, Malir Camp, near Karachi.

Two flotillas engaged in radar operations on the Arakan Coast in the spring of 1944 were mentioned in the Despatches five times. Two flotillas were engaged in Lighterage for the Eastern Fleet based in Trincomalee. The Signalmen for the Landing Craft crews and for the Beach Signal Section and the Naval Bombardment troops were trained in H.M.I.S. *Talwar* and H.M.S. *Braganza III*, a Royal Naval establishment in Bombay. During 1944, four ratings from *Braganza III* qualified as Paratroopers. In the autumn of 1944 almost all the operational flotillas and units of the Landing Craft Wing moved to the Arakan, where they were employed in ferrying

stores and working up with "Force 64" for the assault on Akyab. During the landing at Akyab and in the subsequent operations, at Myebon and Ramree, the flotillas and units of the Royal Indian Navy Landing Craft acquitted themselves with credit. In the words of the Force Commander—"they have done more than their stuff".

H.M.I.S. Shivaji

Towards the end of 1940, an expanded Mechanical Training School within the dockyard area was planned as a joint measure with the object of enlarging the training capacity for 500 Naval personnel. As a result of the expansion of the dockyard during the next two years, it became necessary to find another site for the establishment outside the dockyard area. The new Mechanical Training Establishment at Lonavla (near Poona) was approved on 1 July 1943 and construction commenced during that year. The target date for completion was 31 May 1944. Due, however, to shortage of labour and transport difficulties in obtaining building materials etc., the completion date was amended and was finally fixed as 31 December 1944.

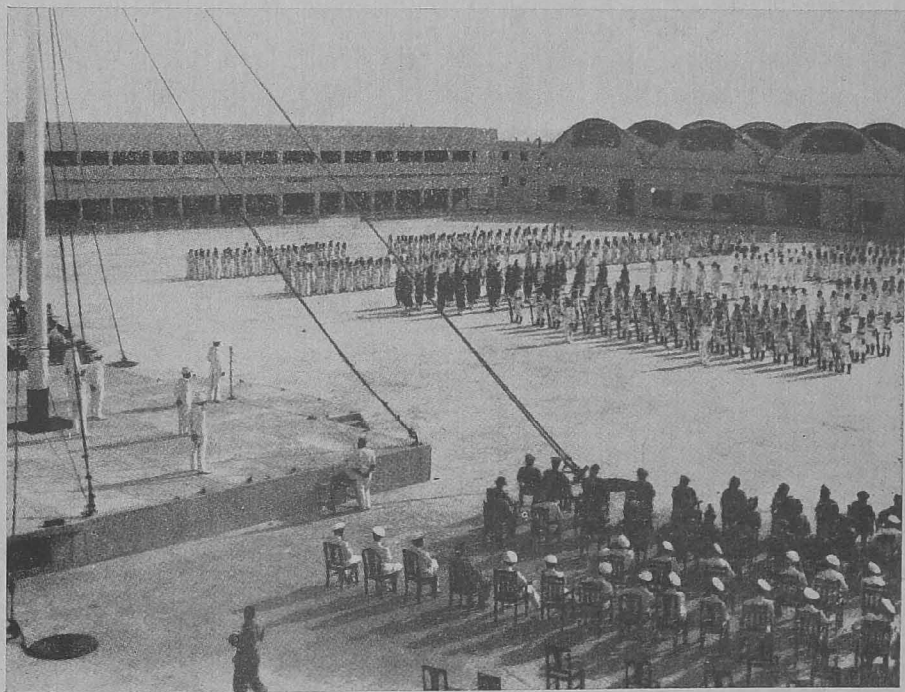
Early during 1944, as accommodation became available, the movement of boilers and machinery from Bombay was taken in hand. The first advance party left the Mechanical Training Establishment in Bombay for the new one at Lonavla on 29 November 1944. *H.M.I.S. Shivaji* was finally commissioned on 8 January 1945. The new establishment was designed to train a maximum number of 720 Naval personnel of various categories, and provided for an instructional staff and Ship's Company of 50 officers and 329 ratings. It gave technical training to candidates for temporary R.I.N.V.R. commissions. It possessed a variety of modern mechanical and engineering appliances, steam and internal combustion engines, turbines, condensers, lathes and coppersmith's hearths etc. A number of civilians were employed on the instructional staff, and courses covered both theory and practical work.

Other Training

Fire Fighting and Damage Control—The Admiralty regarded it as essential that all naval personnel should be trained in fire-fighting, many ships having been lost during the war through fire. Early in 1944, a school was constructed at Bombay (dockyard area) and commenced short courses for officers and ratings. It continued in operation up to the end of the war. Damage Control was first taught at *H.M.I.S. Valsura* and at *H.M.I.S. Shivaji*, whilst a series of



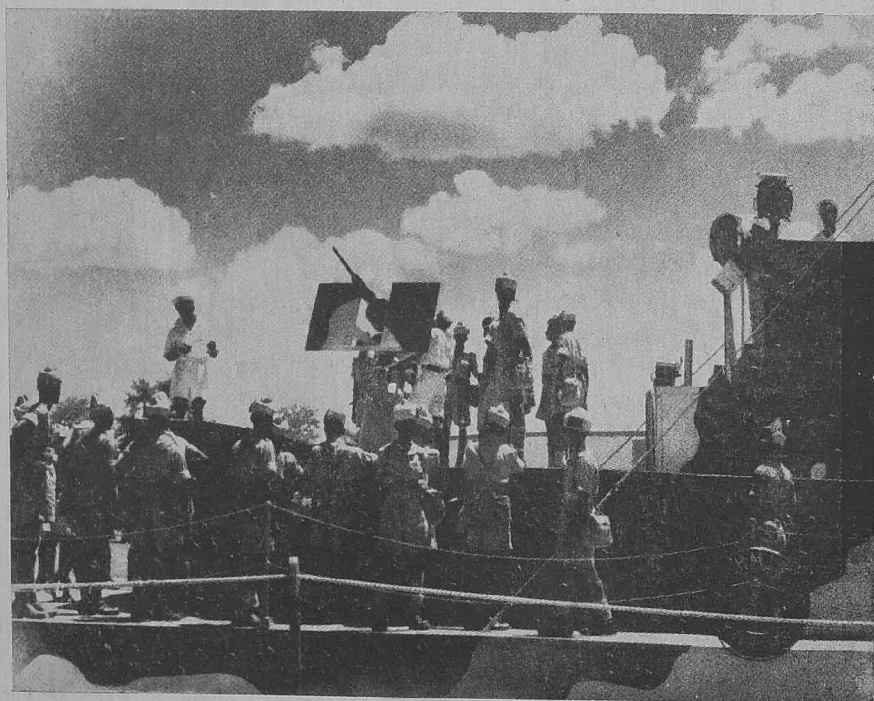
Chief Ordnance Artificer P. C. Mascarenhas,
D.S.M., R.I.N.



A general view of the parade ground of H.M.I.S. *Himalaya* as
Vice-Admiral Godfrey declares open the new establishment



Landing Craft put troops ashore on one of the beaches in an assault



Indian soldiers visit H.M.I.S. *Peshawar*, a model warship at the War Services Exhibition at Peshawar

lectures was issued to ships and establishments. In 1944, a R. I. N. officer was sent to the U. K. to undergo course in damage control, and on his return he opened the Damage Control School in Bombay. Short courses were conducted for officers and ratings and it continued to operate till the end of the war.

Anti-Submarine Tactical Training—This was established in Bombay on similar lines to the famous Western Approaches Tactical Unit at Liverpool. Officers of ships equipped with anti-submarine weapons were trained there in the latest tactics of under-water warfare. Training was so arranged that officers from escort vessels escorting convoys to Bombay might be able to attend the Tactical Training Unit in the interval before their vessels left the port along with their convoys. Thus officers were able to keep abreast of the ever-changing tactics of anti-submarine warfare.

Action Information Training—Reference has already been made to the training of officers in H.M.I.S. *Chamak* in radar, plotting and action information organisation etc. With the introduction into Royal Indian Navy ships of new and more complicated sets, action information centres and the like, a complete reorganisation of the radar branch was necessitated. As a result, personnel were trained separately in (a) Radar Plot: those who were responsible for manning all warning sets fitted, manning action information centres and carrying out all plotting duties in ships (b) Radar Control: those who were responsible for manning all gunnery and target indication sets and fire control.

Anti-Gas Training—Anti-gas training was first undertaken in Castle Barracks, Bombay. The I.N.C.S. (Indian Naval Canteen Service) Warehouse Bombay was used as the gas chamber then. Later, anti-gas training was given in H.M.I.S. *Akbar*, Kolshet, Bombay to officers as well as ratings.

CHAPTER VIII

Home Front—2

RECRUITMENT OF RATINGS

Recruitment of ratings to the Royal Indian Navy was carried out in two categories (a) in the permanent cadre on continuous and non-continuous service engagements and (b) temporary cadre on special service and hostilities only engagements. Boy ratings were enrolled for a period of twelve years and direct entry ratings for a period of not less than six or more than ten years' continuous service, followed by a further period of ten years' service in the reserve, if required. The above period of twelve years' service might be reduced to eight years, at the discretion of the Flag Officer Commanding the Royal Indian Navy, the balance being completed in the reserve, if required. The initial continuous service enrolment period for a direct entry rating was adjusted so that his age on completion was not below 28 nor above 32. The direct entry continuous service ratings normally were restricted to artisans, artificers and writers. The period of enrolment of a boy commenced from the date on which he was enrolled provided he was not less than sixteen years of age on that date. Every rating so entered or borne was distinguished in the ledger, pay documents, certificates and conduct sheets by the official number against his name and in the case of non-continuous service ratings by the letters "N.C.S." also.

Non-continuous service was restricted to ratings of the domestic branch and in special cases, with the approval of the Officer Commanding the Royal Indian Navy, to men temporarily required to fill vacancies in the lower rates of other branches which were not filled immediately by continuous service ratings. Only men with naval, military, air force or civilian experience as stewards or cooks were entered as such. Certificates of service or other evidence to show that recruits had the necessary experience were examined and, when circumstances admitted, a practical test was carried out before final entry was effected. Non-continuous service men, when entered for the first time or re-entered after a break in service were enrolled as stewards or leading cooks in the domestic branch and artisan third class as artisans. Men entered for the first time were always under 25 years of age. Enrolment or re-enrolment, with or without a break in service, was normally for 3 years. A

non-continuous service domestic rating on completion of 10 years' service without a break was transferred to continuous service to complete his period to secure the benefit of pension.

Special service ratings entered as ordinary seamen and stokers II class between the ages of $17\frac{1}{2}$ and 24 and as ordinary signalman and ordinary telegraphists between the ages of $17\frac{1}{2}$ and 24, and were required to sign an engagement form S-55 for a period of 10 years, from the date of entry or the date of attaining the age of 18, whichever was later. Every man so entered or borne was distinguished in the ledger, pay documents and certificates and on his conduct sheets by the letters, "S. S. " and official number against his name. The first five years from the date of entry or 18th birthday or such less portion as the Officer Commanding R.I.N. might direct, was in the active service and the residue in the Royal Indian Fleet Reserve. The rates of substantive pay of special service ratings were the same as those of continuous service ratings. Special service ratings were not eligible for advancement above leading rates but, if transferred to continuous service, they were eligible for further advancement subject to continuous service regulations.

When more ships were requisitioned for the Royal Indian Navy, personnel for the additional ships were provided by recruiting hostilities only ratings. These were merchant seamen, in some cases taken from the crews of the requisitioned ships. Although illiterate and ignorant of the specialist work as gunnery etc. required in the Royal Indian Navy, they filled an urgent requirement.

The rates of pay of Royal Indian Navy ratings had an appreciable effect on recruitment and consequently on expansion. At the outbreak of the war an ordinary seaman in the merchant service and his counterpart in the Royal Indian Navy both received Rs. 20/- a month with certain allowances. On 4 September 1939 the shipping companies agreed to allow a war bonus of 25%. A week later approval was given for a similar increase in the pay of hostilities only ratings. The pay of ordinary seaman then became—

Merchant Service	Rs. 25/-
R.I.N. (Hostilities Only)	Rs. 25/-
R.I.N. (Active Service)	Rs. 20/-

On 31 December 1939 an increase in the merchant service basic rate was made and the following rates were introduced :—

Merchant Service	Rs. 30/-
R.I.N. (Hostilities Only)	Rs. 25/-
R.I.N. (Active Service)	Rs. 20/-

This process continued. The hostilities only rating lagged behind the merchant service from which he had been recruited and consequently the best type of men naturally remained in the merchant service and those who could not obtain jobs in it joined the Royal Indian Navy. There were, of course, exceptions also¹.

The valuable part played by hostilities only ratings throughout the war cannot be over emphasised and deserves special mention. Initially these men came from merchant fleet, but as the war proceeded, many other types of men were enrolled and filled the gap caused by the lack of special service recruits. Particularly was this the case in the category of artificers and engine room personnel, but at a later stage when a general increase in strength was achieved, the domestic branches also had to depend on the hostilities only ratings for manning the services.

During the course of the war, 9,000 hostilities only ratings were recruited though wastages claimed approximately 4,600. Of this wastage there were over 1,800 desertions, the remainder being by discharge and death. Actually this desertion rate when considered in the light of the entire war, was in effect higher as, during 1943 about 500 Class V Motor Engineers were enrolled for service in the Landing Craft Wing, but were quickly discharged and replaced by Short Service (S.S.) stokers from General Service. The desertions were incurred mainly at times when rates of pay in the merchant fleet were increased. Thus the incidental wastage by desertion accounted for nearly 45%, a fairly high figure.

Early in the war, it was laid down that hostilities only ratings whose pay was considerably more than that of men of special service terms, should be replaced as soon as possible by short service men. Again in 1943 a definite plan was drawn up whereby it was thought possible that the large majority of lower hostilities only ratings (then amounting to 4,158) might be replaced by the end of 1945. Many factors were expected to complicate this programme, and, in fact, they did. The target showed a marked and rapid increase and lack of intake of special service men assumed serious proportions. The combined result of all this was to retard considerably any contemplated replacement. Finally, following stabilisation of the target in 1944, and after acquiring a steady intake of special servicemen, it was found possible to commence replacement in May 1945, and it continued steadily until the end of the war.

1. A detailed account of the pay and allowances in the R.I.N. is given in a later chapter.

Recruiting Demands and Intake

It is convenient to divide the war into two periods as regards recruiting. The first period stretches from the beginning of the war to the end of 1941, and the second from the beginning of 1942 to the cessation of hostilities. During the first period, recruitment was undertaken solely by the Royal Indian Navy whilst the Inter-Service Recruiting Organisation took over from the beginning of 1942. Some direct recruitment continued even after this date but it was very limited.

The Recruiting Directorate of Adjutant General's Branch was given the task of maintaining an establishment 4,396 strong, and of making up of a deficiency of 5,728 and its consequential maintenance. The borne strength quoted comprised only active service ratings, which the Recruiting Directorate was called on to maintain, but the deficiency provided for an intake sufficient to replace hostilities only ratings.

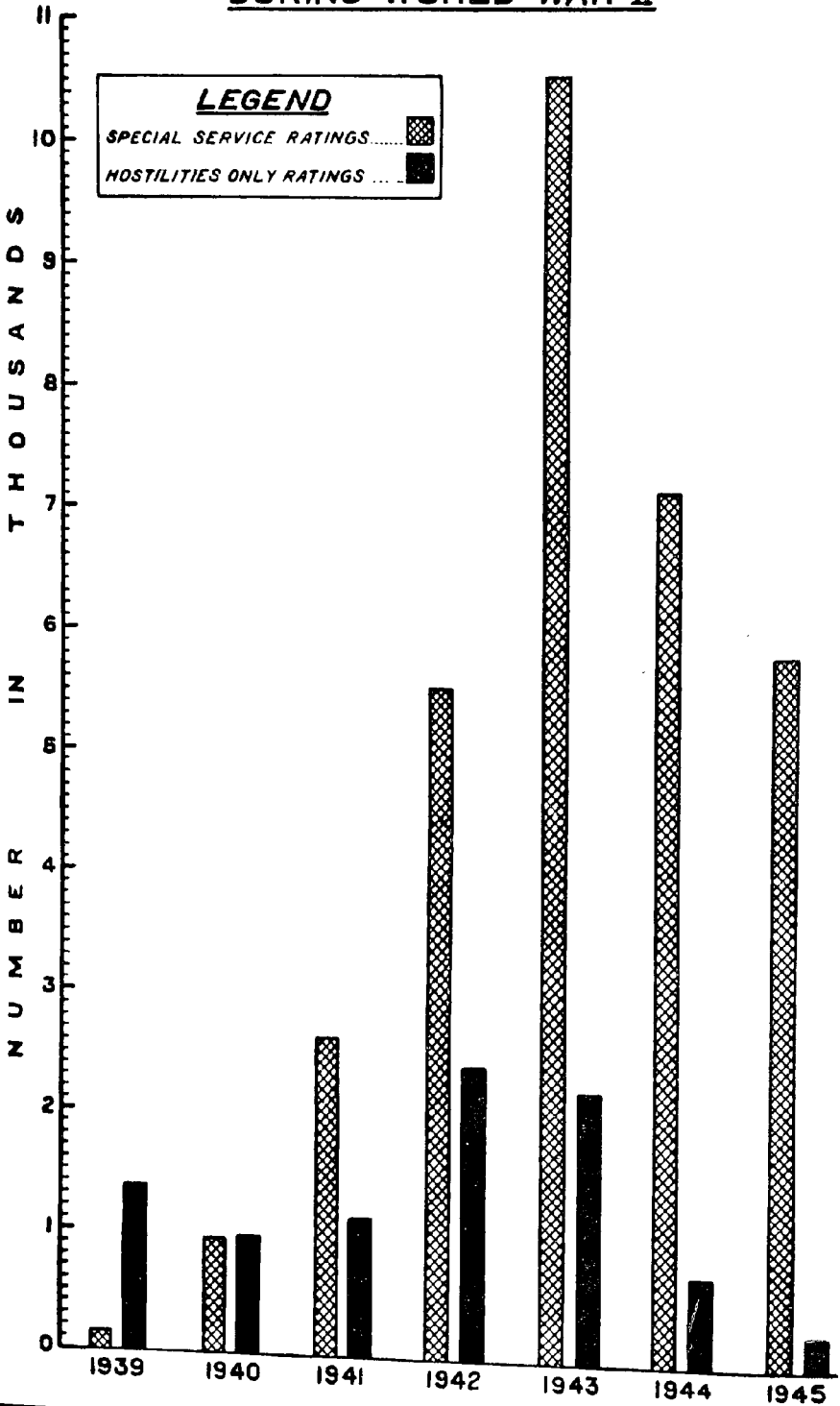
The following table shows the progress made year by year up to the end of the war :—

<i>Position as on</i>	<i>Active Service Target Strength</i>	<i>Active Service Borne Strength</i>	<i>Defici- ency on Target</i>	<i>HO Target Strength</i>	<i>HO Borne in lieu</i>	<i>Net working defici- ency</i>
1	2	3	4	5	6	7
1.1.1942	10,124	4,396	5,728	7,794	2,056	3,672
1.1.1943	10,185	9,256	6,929	10,435	3,506	3,423
1.1.1944	25,274	16,745	8,529	13,272	4,743	3,746
1.1.1945	28,524	20,445	8,079	12,777	4,698	3,391
15.8.1945	27,707	23,567	4,140	8,224	4,084	56

For the first three years, no appreciable change was apparent in the deficiency despite the fact that in addition to the special service intake additional 2,642 hostilities only men had been signed on direct by the Royal Indian Navy.

The intake demand was controlled by training facilities available, and demands were never met fully. This was not the primary reason for the failure to eliminate the deficiency, the cause being the heavy wastage incurred and the developing increases in the targets.

INTAKE OF MEN IN THE RIN DURING WORLD WAR II



It was only when the target had been severely controlled and restricted that progress was made towards wiping off the deficiency, which stood at only 56 at the end of the war.

Prior to 1942 direct recruitment produced 7,193 ratings, and thereafter, until the end of the war, 8,476. From its inception until the close of the war the Recruiting Directorate produced 25,090 ratings. In addition 2,306 ratings were transferred direct from the army to the Landing Craft Wing. Thus through the Recruiting Organisation 58% of the Royal Indian Navy manpower was obtained, and through other sources, 42%—mostly direct recruitment.

These results speak well for the recruiting work carried out by the navy, particularly when the high proportion obtained up to 1942 is taken into account. The numbers within the service then were so small and the Recruiting Organisation generally was in its infancy as far as the expanded service was concerned. Excluding the army transferees the monthly recruitment figure was approximately 220. A major portion of this figure covered hostilities only ratings. The monthly average of special service ratings received through the Recruiting Directorate was almost 600.

In the later stages special service ratings were being recruited to replace the hostilities only ratings recruited earlier in the war, so that in effect a certain amount of duplication of effort was experienced during the course of the entire war. In the earlier days of the existence of the Inter-Service Recruiting Directorate the periodical naval requirements prepared by the Royal Indian Navy were somewhat haphazard. The controlling factor being the capacity of R.I.N. training establishments, both as regards accommodation and instructional staff, intake in those days bore little or no relation to the actual manpower requirements. In the majority of branches deficiencies of special service ratings were so large that the only consideration was to obtain as many of the required standard as might be provided and trained. In nearly all cases training establishments were too small to deal with an intake sufficiently large to enable the R.I.N. to man fully new construction ships; hence hostilities only ratings had to be recruited again in large numbers. This necessarily implied expansion of almost all training establishments. As soon as it was accomplished the navy was able to increase its recruiting demands. Unfortunately, by the time this increase was possible manpower resources had been drained of a large portion of the best material, particularly in the higher educational zones. As the other Services also required educated men the navy was never subsequently able to obtain its requirements in full.

A brief note on the calculation of demands may here be of interest. Demands were normally calculated on the basis of the ensuing twelve months requirements. The basic figure in each category and branch was the deficiency of trained men against total requirements (target). To this was added the anticipated wastage of trained men during the following twelve months, and in addition such wastage for variations in target were next taken into account. These were either increases or reductions. The result was the required gross commitment in trained men at the end of the ensuing year.

Credit was then taken for the estimated output of trained men from recruits then under training, after making due allowance for wastage at rates obtaining at the time. Thus the net annual commitment in terms of trained men was arrived at. To this figure was added an allowance at the appropriate rate to cover initial training wastage, and the result was the total number of recruits necessary during the next twelve months on the assumption that the target could be met and establishments maintained in full.

The next step was to allocate the total requirements of each branch into a monthly intake. Here the controlling factor, as mentioned above, was training capacity. Normally specific demands were made for each of the following three months, as, according to the realization of these demands subsequent monthly intake was adjusted. If the balance remaining was within nine months' training capacity it was shown as a bulk figure for the following nine months. Any excess over this balance had, however, to be accepted as a carry-over deficiency into the following year.²

Training of Ratings

The training of the rapidly expanding navy presented many difficulties. The main problems were the institution of courses not previously undertaken, shortages of instructors and equipment, and the difficult situation created by the pre-war policy of centralising all training activities within the dockyard area. This centralisation, though economical, did not favour rapid expansion of training establishments. Considerations of space compelled the transfer of training establishments beyond the confines of the dockyard. Work began on a new Royal Indian Navy Depot (Castle Barracks), Bombay, on the site of the old Bombay Castle. This Depot was intended to meet the wider needs of the Service, as en-

2. For a full analysis of the intake see Appendix XII. Appendix XIII shows the manning progress of R.I.N. during World War II,

visaged by the recommendations of the Chatfield Committee, and was to provide accommodation for 400 Petty Officers and other ratings. The barracks were completed in January 1941 and subsequent improvisation allowed for the housing of a total of 1,000 ratings. This, however, was inadequate for the increasing wartime needs of the Royal Indian Navy. Some training schools were housed in Castle Barracks, others elsewhere in makeshift quarters until more permanent schools were set up. Because of these difficulties recruiting and rapid training of personnel were hindered.

Seamen Training

On the outbreak of war, recruiting for continuous service ratings (save boys and artificer apprentices) had ceased, hostilities only ratings were regarded on recruitment as fully trained professional seamen and, therefore, received no training other than that aboard ship on being drafted to sea. It was, therefore, with the training of special service ratings and boys that R.I.N. was then mainly concerned.

Until mid-1940 the hulk H.M.I.S. *Dalhousie* was the Boys Training Establishment. When this establishment was moved to Karachi, the hulk was utilised for the training of special service ratings. With the expansion of the service and recruitment, *Dalhousie* was found to be much too small. Ultimately the intake by recruitment had to be curbed for lack of accommodation in the training schools, and this too at a time when the service urgently required men. As Castle Barracks were completed, the training of special service ratings was moved there, but this afforded only momentary relief as space there also was extremely limited³. This necessitated a further transfer of the establishment to H.M.I.S. *Khanjar*, an area of requisitioned buildings at Versova, some 18 miles from Bombay. The *Khanjar* was admittedly a temporary expedient, pending the construction of a larger and more permanent establishment at Kolshet (H.M.I.S. *Akbar*).

At the *Khanjar* all special service ratings received their first eleven weeks training consisting of educational and disciplinary courses. Thereafter seamen were transferred to the hulk *Dalhousie* for practical training for twelve weeks in seamanship which included one week's sea-going training. The total number of ratings who were trained at one time at the *Khanjar* was :—

3. R.I.N. Memorandum OSD/F6

Seamen	990
Stokers	330
Cooks (S)	90
Cooks (O)	90

In 1943 when the intensified campaign of the Recruiting Directorate had increased the flow of recruits, the *Khanjar* and other training establishments were unable to cope with the additional numbers and asked for recruiting to be curtailed. But as this might have affected subsequent recruiting adversely, it was arranged to open Naval Wings at the Recruit Reception Camps at Bangalore and at other places. Here recruits were held until they might be absorbed by the training establishments.

H.M.I.S. *Akbar* was commissioned on a tented basis in January 1944. All new entry training for seamen, cooks, writers etc. was undertaken there. New entry divisional courses for schoolmasters, artificers, stokers, writers and sick berth attendants etc. were also carried out. The hulk *Dalhousie* and H.M.I.S. *Khanjar* ceased to be new entry training establishments. Seamanship training *Akbar* comprised a 24-week course at the end of which a recruit passed out with the rank of ordinary seaman, although he had passed the examination for able seaman also. Advancement to the latter rate, however, required one year's service to include, if possible, four months' sea time.

From the middle of 1944 till the end of hostilities, there were no major alterations at H.M.I.S. *Akbar*. Considerable improvement was, however, made in the matter of sea training with the formation, in mid-1944, of the Bombay Training Flotilla consisting of H.M.I. ships *Cornwallis*, *Clive*, *Dipavati*, *Hira*, *Lal*, and *Nilam*. In June 1945, H.M.I.S. *Gondwana* joined the flotilla primarily as an anti-submarine training ship, but was utilised for the sea training of recruits from H.M.I.S. *Akbar* when anti-submarine training was not possible during the monsoon. H.M.I.S. *Cornwallis* was paid off in July 1945 and in November of that year H.M.I.S. *Lawrence* joined the flotilla.

Boys Training

Experience has taught that the best seamen are those who have been trained in the profession from their early youth. This was particularly the case in India where the standard of literacy was low. Sound knowledge of technical subjects is essential for the seamen who must have as basis a good standard of general education. This was fully appreciated in the R.I.N. and in 1937 a plan was drawn up

for a new and permanent Boys Training Establishment to replace H.M.I.S.*Dalhousie*. In the following year construction was begun at Manora, Karachi. This new establishment (H.M.I.S.*Bahadur*) was commissioned in May 1940 and was originally designed to house 250 boys. To meet wartime requirements it was later expanded to accommodate 500 boys. The *Bahadur* became a modern well-equipped school with adequate instructional apparatus and extensive playing fields.

During the war the recruitment of boys considerably increased. As a shortage of boys of the requisite educational and physical standards was experienced, it was decided to set up an establishment for junior boys between the ages of 14 and 15½ to prepare them for entry into the *Bahadur*. Building work started on Chinna Creek, Karachi, in September 1941, and the establishment was commissioned as H.M.I.S.*Dilawar* in February 1942. Boys were admitted at half-yearly intervals, the capacity of the establishment being 240. With the rapid expansion of the service, the need for more continuous service ratings grew. To meet this as quickly as possible and to avoid further construction, it was decided that entries into the *Dilawar* should be of the same age as those for the *Bahadur* (i.e.) 15 to 17. Educationally, entries into the *Dilawar* were, therefore, one year higher. The annual output from those establishments was thus increased from 360 to 480.

Having signed on for continuous service, boys entered the *Bahadur* between the ages of 15 and 17, at 2 years pre-matriculation standard. There was a fresh intake every 3 months. The course of 18 months covered general educational subjects and science (including electricity, wireless, engineering science and magnetism) and naval subjects such as seamanship, divisional duties, service customs and regulations, naval history and field training. Advanced classes received elementary instruction in navigation. On completion of his course, a boy had attained at least the matriculation standard of other Indian schools. In 1945, the passing-out examination was accepted by the Madras Government as equivalent to the standard required for their inferior services.

One of the difficulties encountered during the period 1940-43 was that of obtaining suitable schoolmasters. Men temperamentally and morally fitted for the instruction of boys and with the requisite high academic qualifications were relatively few and not easily induced to join the Royal Indian Navy where pay was comparatively poor. Later the pay and status of a schoolmaster were raised and the situation eased.

The hulk *Dalhousie* was moved to Karachi in 1944 where it was attached to the *Bahadur* for training purposes. Early in 1945 she became unseaworthy and was sold. H.M.I.S. *Investigator* was then provided as a sea training ship for boys, in January 1945. Her commodious accommodation made her specially suitable for the job—she made a number of training cruises, including two to East Africa.

Mechanical Training

Towards the end of 1940 an expanded mechanical training establishment within the dockyard area was planned to train 500 ratings at a time. The new school was completed towards the close of 1941. Training of various hostilities only categories was then also undertaken, including motor engineers, boiler room chargemen, drivers (Steam I and II), greasers etc. Practical training was carried out afloat in H.M.I.S. *Lawrence* and other local naval defence vessels. The expansion of the dockyard within the next three years resulted in the shifting of the mechanical training establishment to a new site at Lonavala in the Western Ghats, about 80 miles from Bombay. The new school was commissioned at H.M.I.S. *Shivaji* in June 1945. It was designed to train a maximum of 720 ratings of all categories.

In 1942, when difficulty was experienced in finding suitable men for artificer artisans (acting IV class), a special pre-training scheme was evolved for men of Intermediate Science standard. They were to be given 6 months' practical engineering instruction at the Civilian Training Centre, Pilani (Jaipur State) to fit them for recruitment into the mechanical training establishment as direct entry artificers. This arrangement was made possible by the generosity of Mr. G. D. Birla who supplied most of the training equipment free of charge. The centre was administered by the Labour Department. Later it was felt that efficiency would be increased by converting it into a Civilian Naval Centre (Civ-Naval Centre) under a R.I.N. Engineer Officer. The change occurred early in 1944 and disciplinary training was added to the course with a naval staff of 3 officers and 36 ratings. There was a Labour Department staff of 60, administration remaining under that department. Later in 1944, recruitment to the Civ-Naval Centre, which till then had been poor, received considerable impetus. To cope with the growing numbers and also to improve the internal administration of the centre, about which there had been some dissatisfaction, the Naval Staff was increased to 3 Engineer Officers (including a Lt. Comdr. (E) incharge), 3 Executive Officers and one Supply

Officer, in addition to the requisite Regulating Staff and Ship's Company.

Gunnery Training

In 1939 for the first time since the Great War, expansion of facilities for gunners training was taken up. Close to the existing battery in the dockyard were installed one high angle section and R/F (Range Finder) Director with F.K.C. (Fuse Keeping Clock) and F.C.B. (Fire Control Box) equipment. Then in September, "the maximum possible expansion of the Gunnery School took place in the space then available. Fire control, ammunition, land fighting, and director sections were added in a building adjacent to the battery. In due course another battery was added, giving a total of five guns (4" Mk IV Q. F., (Quick Firing), 4" Mk. IX. B/L; and 6".B/L (Breach Loading)—the last being for the training of gun crews for armed merchant cruisers. In 1940, when the Navy Office moved out of its premises in the dockyard, a number of class rooms became available for theoretical and educational instruction, but at the same time the increased flow of naval stores caused part of the already small parade ground to be absorbed for storage purposes".⁴

The policy of moving all training establishments out of the dockyard area was then being enforced. In any event the Gunnery School had become so cramped that a move was essential if efficient training was to be provided. Various locations were considered, but to all of them, there was some objection or other, and it was after some considerable time when a suitable site was finally found at Manora Sandspit, Karachi. Building operations were not seriously begun until early 1942. Meanwhile, the expansion of the school could not be delayed, and on 1 June 1942 it moved to Ill Palazzo on Malabar Hill being commissioned as H.M.I.S. *Himalaya* in January 1943. Two blocks of flats and a bungalow were requisitioned for accommodation and by the end of 1942 there were 500 to 600 ratings under training. That figure was maintained in 1944 after the schools had moved to Karachi. Thereafter, numbers remained more or less constant, showing only a slight increase. This new school had increased accommodation and was equipped in the most up-to-date manner, being the most modern of its kind outside the United Kingdom. For the first time it was possible to give detailed practical instruction and to allow trainees to gain experience of the actual

instruments concerned. A memorandum from H.M.I.S. *Himalaya* summed up the change thus.

“The new Gunnery School in Karachi has proved in five months how vitally necessary an establishment of its kind was, and the results of the classes passing through during this period have been most gratifying. Ratings in the past had to be told in a class room how to turn handles, follow pointers and a host of other things which can only be learnt practically. Now this difficulty has been solved, and each instructor knows that he is in a position to show his class practically all that they will be called upon to do at sea. From the training point of view the answer has at last been reached and the difficulties of the past left behind.”

The necessity for a fully-equipped school was amply established by examination results, those at Karachi showing a vast improvement over earlier examinations held in Bombay.

When the difficulties relating to accommodation and provision of equipment were removed, the main problem to be faced was to obtain an adequate number of Instructors. At the beginning of 1944, against a sanctioned establishment of 8 Chief Gunners Mates, 16 Gunners Mates, and 10 other Higher Gunnery Rate Instructors, the *Himalaya* had only 3 Chief Gunners Mates, 5 Gunners Mates and 6 Higher Gunnery Rate Instructors. This shortage was neutralised by a simultaneous shortage in the number of ratings under training, as the *Himalaya* had only one-third of its total capacity. But in mid-1944 when the full complement of ratings was available for training, the problem of providing instructors assumed significance.

In 1944-45 the *Himalaya* was improved by the addition of new training equipment. The firing range was extended to accommodate Defensive Equipment of Merchant Shipping (D.E.M.S.) and Coastal force guns. A Chief Ordnance Artificer was sent to the United Kingdom for training and was subsequently promoted as the first Indian Warrant Ordnance Artificer.

Anti-Submarine Training

Enough has already been said under H.M.I.S. *Machlimar* in respect of anti-submarine training. Instruction commenced in April 1943 in the new school (H.M.I.S. *Machlimar*), which was later expanded to provide for the training of Harbour Defence Operators, instruction being given to R.N., R.I.N., and Ceylon R.N.V.R. ratings. Instruction was also imparted to teams who would man a ship's anti-submarine set as a unit. Bases were fully manned by qualified A/S officers. Ample equipment was maintained to execute repairs

to all except the most modern sets. Adequate spares for the types 144Q and 147B, which were the two main sets fitted in the ships, were kept at all ports. Attack Teachers for training in type 123 A sets were in operation in Bombay, Karachi, Madras, Vizagapatam and Calcutta. In addition, Attack Teachers type A/S type 345 for training in all type sets were installed in Bombay, Vizagapatam and Calcutta. A mass procedure Teacher type A/S 406 was installed in Bombay. A/S Type 84 and A/S Type 49 sets were fitted in Royal Indian Navy ships and boats. Fixed Defence Stations were then in operation in Madras, Karachi and Vizagapatam. The Bombay station was abandoned in July 1944 as unsuitable.

Torpedo and Electrical Training

The Torpedo Branch was the youngest in the Service. It was responsible for all torpedo, mining, paravanes, and depth charge gear in Indian navy ships and motor torpedo boats, and also for the efficient working of all electrical apparatus, excluding wireless, radar and anti-submarine gear. The utility of the Branch was fully demonstrated when Bittern and Black Swan class sloops and other vessels with modern electrical equipment were acquired, and with the introduction of motor torpedo boats.

Originally, certain Engineer Officers and Electrical Apprentices (E. As.) received courses in electrical maintenance, but these men lacked special theoretical and practical knowledge for maintenance of modern fire control gear etc, and the Engineer Officers were almost fully occupied at sea with their normal engineering duties. Thus the expedient did not prove a success. As a result, a number of Warrant Electricians were borrowed from the Admiralty. At the same time some officers and apprentices were sent for training to H.M.S. *Vernon*, Torpedo and Electrical Training School in the United Kingdom. These officers and ratings, together with certain E. As who had received electrical training at the Mechanical Training Establishment, Bombay, formed the nucleus of the Torpedo Branch. A Torpedo School was opened in the dockyard in June 1942 and later moved to its new location at Rozi Island, in Jamnagar, in December 1942. The school was commissioned as H.M.I.S. *Valsura* and was sanctioned as a joint venture with the Royal Navy which supplied some instructors and whose ratings were trained in the school. In the middle of 1944 M.L.420 was allotted to H.M.I.S. *Valsura* for torpedo firing duties.

To co-ordinate all matters relating to torpedoes, mining and electrical subjects, a Staff Officer (Torpedo and Mining) was ap-

pointed at the Naval Headquarters in November 1943. In March 1944 a Torpedo Officer was appointed for duties on the East Coast (on the staff of the Commodore, Bay of Bengal) and one for the West Coast (on the staff of the Flag Officer, Bombay).

Electrical Mechanics Training

After the formation of the Landing Craft Wing, electrical maintenance was undertaken by 3 types of Ratings—Wiremen (H.Os), Electrical Artificers from General Service, and a newly created rate known as Electrical Artificers. This arrangement was not satisfactory. Men employed on the same work were on varying conditions of service and had been trained in different ways. E. As (L.C.W.) had received only a brief course in Bombay.

The E.A. (L.C.W.) Branch worked independently of H.M.I.S. *Valsura* until December 1943 when an officer from the torpedo school was deputed to take charge of the training of ratings for the Landing Craft Wing. As the quality of ratings engaged on electrical maintenance in the Landing Craft Wing was not found satisfactory, and as H.M.I.S. *Valsura* was unable to undertake their training, the school was attached to H.M.I.S. *Khanjar* which later came to be known as H.M.I.S. *Hamla*. In February 1944 a new Electrical Mechanics Branch was formed. This was intended ultimately to take over all electrical maintenance in the landing craft.

Lack of equipment was so grave in the early stages that it seriously dislocated the training programme, as originally planned. This difficulty was overcome, but a shortage of instructors still remained, and in early 1944 the school had only half its sanctioned establishment of instructors. Candidates for entry into this Branch were selected from stokers and seamen ratings, undergoing their new entry courses at H.M.I.S. *Akbar*. The electrical course was intended to fit them to take full responsibility for all electrical care and maintenance of 8 to 10 Landing Craft. It was estimated that 60 electrical mechanics were to be trained by the end of July 1944.

As part of the reorganisation of the Landing Craft Wing, it was decided that the training school for electrical mechanics, previously located in H.M.I.S. *Hamla*, should be transferred to H.M.I.S. *Valsura*. This was effected in May 1945. The need for a qualified Electrical Officer at the Naval Headquarters was felt and an electrical officer of Commander's rank was loaned by the Admiralty in December 1944. The number of electrical officers borne increased from 25 to 58.

Signals Training

Until 1941 the training of communication ratings was carried out in a Signal School in the dockyard area. Upto 1939 the output of trained boys had been somewhat less than 100 annually. In 1940 the training of communication boys was transferred to H.M.I.S. *Bahadur*. But the great increase in the number of special service ratings necessitated the opening of a new school at Colaba in April 1941. Their training period was then cut down to 5½ months, including the New Entry Course. This was unavoidable but it resulted in the drafting of inadequately trained communication ratings to ships and shore stations. However, by 1944 the situation had considerably eased and it was possible to extend the training period to approximately 8½ months including 2 months in a sea-going training ship.

Besides the instructional staff of 44 ratings and a Ship's Company of 260, the school had accommodation for a total number of 930 ratings, undergoing training. 70 officers and 930 ratings were the maximum that were accepted for training at any one time. The school was originally under the administrative and disciplinary control of the Commanding Officer of the R.I.N. Depot but later it was made an independent establishment and commissioned as H.M.I.S. *Talwar*. The sloop H.M.I.S. *Cornwallis* was allotted to it for practical training. The establishment was purely a R.I.N. commitment, but the Admiralty had built some class rooms and loaned a few instructors. The following were the various kinds of courses undertaken in the Signal School:—

Ordinary signalman's preliminary course, ordinary telegraphists' preliminary course, ordinary radar operators' preliminary course, radio mechanics preliminary course, visual signalmen III's course, visual signalmen II's course, V/S I's course, wireless telegraphists 3's Course, wireless telegraphists II's Course, wireless telegraphists I's course, convoy leading signalmen's course, convoy yeoman's course, leading coders' course, petty officer coders' course.

Radar Training

The training of efficient radar operators created many problems, owing to lack of instructional facilities and the paucity of technically qualified instructors. Upto June 1944, limited training was carried out in Signal School, Bombay, and in H.M.I.S. *Cornwallis* which was commissioned as a tender to that establishment. That training, however, was far from satisfactory and, in February 1944, it was decided to build an up-to-date Radar School at Karachi.

Until H.M.I.S. *Chamak*, the new school was completed, as a temporary measure, radar ratings were trained in H.M.I.S. *Himālaya* where a number of sets were installed. H.M.I.S. *Madras* was refitted as a radar training ship and commissioned as a tender to the Radar School. This led to some improvement in the standard of training of radar operators but the problem still remained acute.

The introduction into Naval ships of new and more complicated sets, action information centres and the like, rendered a complete re-organisation of the radar branch necessary. The branch was, therefore, re-organised into two distinct sections (a) Radar Plot (R. P.) Ratings who were responsible for manning all warning sets, manning action information centres and carrying out all plotting duties in ships; (b) Radar Control (R. C.) Ratings who were responsible for manning all gunnery and target indication sets and for fire control. Similarly a re-organisation was found necessary in the radio mechanics branch which was divided into two sections (a) Radio Mechanics (W)—having as their responsibility the maintenance of ship-borne wireless telegraphy and radar equipment and (b) Radio Mechanics (S)—having as their responsibility the maintenance of wireless telegraphy equipment of all types and who would normally work ashore.

During 1943 some radio mechanics were sent for a preliminary course to the George Telegraph Institute, Calcutta, but the results did not justify this procedure and it was dropped. Radio mechanics were selected from the best of communication and radar personnel and were trained at H.M.I.S. *Talwar*. Upto the middle of 1944, however, results were not satisfactory. In June 1945, H.M.I.S. *Chamak* was commissioned, and in September, the whole situation had greatly improved. Through the generosity of Headquarters, Base Air Forces, South East Asia, arrangements were made for a section of the No. 2 School of Air Force Technical Training, Ameerpet, to be placed at the disposal of the R.I.N., and for instructors and instructional equipment to be provided. Results from this school were excellent, and this high standard was maintained.

Domestic Training

New entry writers and stewards received their professional training at Castle Barracks under the supervision of an Accountant Training Officer. Cooks, after the 6 weeks' Divisional Course at H.M.I.S. *Machlimar* proceeded to *Success*, a requisitioned house formerly part of H.M.I.S. *Khanjar*, for a 8 weeks professional course. This was followed by 4 to 8 weeks practical experience of galley

work. In 1944 the training of cooks, stewards and writers was transferred to H.M.I.S. *Akbar*. A separate cookery school was set up there. The standard of cooking for both officers and men had greatly improved and instruction in bread making introduced.

Hospital and Medical Training for Ratings (Sick-Berth Attendants)

Until February 1944 the training of these ratings was carried out in Castle Barracks under the supervision of a medical officer. Most creditable work was done by the instructional staff, but training space was limited and it was very difficult to give adequate practical training which was an important feature of that course. Later the situation had radically improved when a new training establishment was opened at Sewri, Bombay, with which was attached the new 350 bedded R.I.N. Hospital. That ensured adequate practical work.

MISCELLANEOUS TRAINING

Minesweeping

There was no special minesweeping instruction in the navy. But steps were taken to put certain selected personnel through intensive courses and devote more attention to that subject. Ships fitted for minesweeping and their personnel gained experience by practical minesweeping operations at sea.

Fire Fighting

Upto the end of June 1943, no special steps were taken in connection with fire fighting. The naval authorities deemed it essential that all naval personnel should be trained in fire fighting, as many ships were lost during the war through fire. Early in 1944, a school was established in Bombay, which commenced to give short courses to officers and ratings. It continued in operation up to the end of the war.

Damage Control

Damage Control was first taught at H.M.I.S. *Valsura* and at H.M.I.S. *Shivaji*, whilst a series of lectures was issued to ships and establishments. In 1944, an R.I.N. Officer was sent to the United Kingdom to take a course in Damage Control. On his return he opened the Damage Control School in Bombay. It conducted short courses to officers and ratings and continued to operate till the end of the war.

Anti-Gas Training

So far as was possible every new entry rating was given a short course of instruction in anti-gas training and wearing of respirators at the R.I.N. Depot, Bombay, but, in some cases, the needs of drafting had made it impossible for all men to undergo this course.

Physical Training

The training of Physical Training Instructors was first carried out at H.M.I.S.*Khanjar*. The scope of the Physical Training Instructors (P.T.Is) Branch was enlarged considerably when the New Entry Training Establishment (H.M.I.S.*Akbar*) was commissioned in 1944.

Measures to Promote Recruitment

The rate of recruitment prior to August 1942 was quite inadequate to meet the growing needs of the navy. To step up manpower and promote recruitment, various measures like war services exhibitions, publicity through press, cinema and radio, increase in rates of pay, goodwill tours in the Punjab, East Bengal, Assam, West Coast and South, were undertaken. As a result, rapid strides were taken in attaining the required target and, in fact, it even exceeded the target in some of the branches of the navy.

War Services Exhibitions

“No country geographically situated such as India can be secure without a strong, well-disciplined and modern navy”, declared Vice-Admiral J. H. Godfrey, C.B., Flag Officer Commanding the Royal Indian Navy, in a speech on R.I.N. Day at the War Services Exhibition at Lahore. Vice-Admiral Godfrey referred to the importance of the role that naval defence played in India’s total defence, and added that the Royal Indian Navy had sought in the Punjab a large proportion of its sailors because the province had a reputation for producing excellent fighting men. It was, therefore, most appropriate that the navy should be represented as it was in a War Services Exhibition in the capital of the Punjab.

A War Exhibition Train travelled to all parts of India in 1943 to step up publicity in respect of the defence of the country. Naval personnel consisting of officers, and some ratings were drafted to man the naval section of the exhibition train.

Publicity Through Press, Cinema and Radio

Advertising was a necessary feature of voluntary recruitment and was closely linked with priorities. The Royal Indian Navy

received a good share at the end of 1943 and a steady stream of posters, pamphlets and hand bills was produced in the important languages during the following year. At the same time the local advertising organisations were built up in the field with their information bureaux and literature with local appeal. Two films "Enemy in Sight" and "All Valour" were made by the Directorate of Services Cinematography and were shown in important recruiting areas.

Relations between the Royal Indian Navy and the Indian press and public were cordial. These were further strengthened by judicious efforts to promote public interest in the Service. These efforts took several forms. The naval section of the Inter-Service Public Relations Directorate put out a constant stream of publicity concerning the operational and training activities of the Service. This contributed to a good coverage in the press and on the radio, both in India and overseas. In addition to the reporting of formal functions such as the commissioning of H.M.I.S. *Shivaji* and the opening of the Cornwallis Fleet Club, there was a great deal of publicity for Women's Royal Indian Naval Service. Newspapers and the radio displayed much interest in this new branch of the Service and published many reports and photographs. On the operation side, in addition to the activities of the R.I.N. sloops and escort ships, which were adequately publicised, the Arakan campaign of early 1945 attracted much attention. Public relations were represented in the Arakan by a team of two Royal Indian Navy observers (later increased to three), one officer photographer, one officer cinematographer, and two cinematographer ratings. Through their efforts, newspapers and the public were kept fully informed of the achievement of R.I.N. in action, notably the splendid performance of the Landing Craft Wing, coastal forces, and sloops.

On the film side, the Royal Indian Navy section of the Public Relations Unit was strengthened by the recruitment on loan from the Royal Navy of a competent producer whose first assignment was the production of a film on the Women's Royal Indian Naval Service. This was completed and distributed through information films of India to commercial cinemas. In addition to news-reel material, one or two documentaries on the work of the Royal Indian Navy were also made available.

On 21 October 1944 India celebrated Navy Day for the first time. This met with considerable success and aroused enthusiasm not only in the ports where parades were held but also in inland centres where public meetings were organised. A spate of radio and press publicity accompanied Navy Day.

Among other publicity activities a full-scale model of a Fair-mile was constructed in masonry at Patiala, in February 1944, at the special request of His Highness the Maharaja of Patiala to inculcate naval interest within that state. Inter-Service boys boxing tournaments were held in Lahore and Delhi, which served to arouse public interest in the Service. Boys of H.M.I.S. *Bahadur* and *Dil-awar*, who represented the navy at His Excellency the Commander-in-Chief's Garden Party in 1944, showed that the naval boys training compared favourably with the other Services.

Publications included RINLOG, the monthly journal of the service, several pamphlets on the Women's Royal Indian Naval Service and various naval posters. Facilities were afforded to war correspondents and other journalists to visit ships and establishments and report on the work of the navy.

Increase in Rates of Pay etc.

In 1942, owing to the impression that limited recruitment to the navy was the result of unfavourable rates of pay, as compared with technical recruitment to the army, active service rates of pay were enhanced. The scales were revised for the seaman, stoker, communication and writer branches. This had a natural repercussion on the rates of other branches which led to a subsequent increase in the domestic and instructor branches. Even these increases did not help much and a further revision was made improving the scales of pay of all the branches.

In 1944, a general revision of pay was undertaken, need for enlarged recruiting again being the main reason for it. Emphasis was laid on improving the pay of junior ratings in order to attract recruits. The pay of senior ratings was also increased.

Goodwill Tours

The Flag Officer Commanding Royal Indian Navy conducted extensive tours throughout the country and addressed Chambers of Commerce, Universities, Rotary Clubs, National War Front Meetings and Indian State audiences. In general, he dwelt on the need for India to have a strong navy and advocated the growth of navy-mindedness in the Indian people. He mooted the formation of a Navy League for India. Moreover, in 1944, a Naval Flag Officer, Vice-Admiral J. H. Godfrey, visited a few recruiting areas in Northern India. After visiting the Khyber Pass and Peshawar, he drove from village to village all down the Grand Trunk Road from Mardan to Lahore.

People who had never before seen a ship, much less a man-of-war, travelled long distances to welcome H.M.I.S. *Dipavati* on her goodwill cruise to ports on the south-west coast of India. They saw full-dress parades on shore by 200 Indian naval ratings, headed by the Pipe Band of H.M.I.S. *Akbar*, and they went aboard H.M.I.S. *Dipavati* to inspect her fighting equipment and mess decks and to take tea with her Officers on the quarter deck. Crowds of as many as 15,000 people assembled in some of the ports to see the demonstrations and the march past.

In July 1943, it was decided to send a R.I.N. officer on a lecture tour of the United States of America and Lt. Cdr. H.M.S. Choudri, R.I.N. was selected for this task. The object of his visit was to tell the U. S. Navy and the American public about the R.I.N. He visited naval establishments and ships, ship-building yards, aircraft factories and munition plants, as well as civilian clubs and organisations. He spoke to groups of people at many places and did a fair amount of broadcasting.

Degaussing Organisation

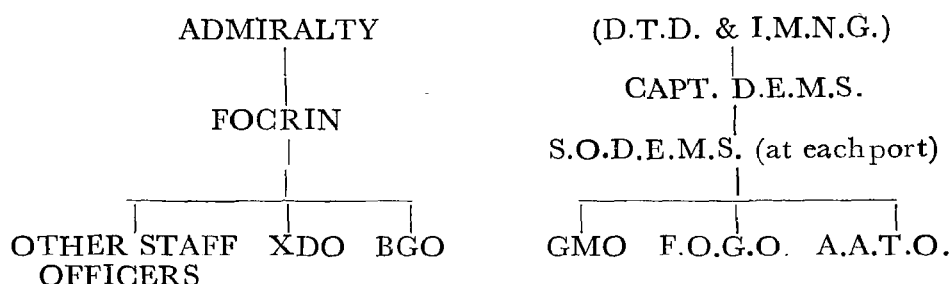
For nearly five and a half years since 1940 a Degaussing Organisation staffed by officers of the Royal and the Royal Indian Navy existed to give protection to ships visiting Indian ports. Hundreds of ships were fitted in Indian ports with equipment to protect them against magnetic mines. This process is known as Degaussing and aims at neutralising a ship's magnetic field so that she can pass safely over a magnetic mine without detonating it.

The knowledge of degaussing possessed by the naval personnel afloat was considered to be inadequate by the Senior Inspector Degaussing (India). Therefore he commenced in August 1944 a series of lectures to ship's personnel (officers mostly) on this subject. The amount of work undertaken by the Base Electrical Officers and their staff increased rapidly during 1943. Early in 1944 sanctions were obtained for (a) increase in staff and employment of civilian electricians (b) additional workshop machinery and tools and (c) an establishment of electrical stores at each base. Difficulty was experienced in obtaining these stores but the position improved after some time. Degaussing ranges started operating in Bombay, Vizagapatam and Calcutta. 'Wiping and Deperming' were carried out in Bombay and Calcutta, but the use of the unit in Calcutta was somewhat limited as only ships not exceeding 300 ft. in length or 16 feet draft could be accommodated. H.M.I.S. *Barq* was taken up as the first mobile Deperming unit. It was later condemned

as unserviceable in July 1944, and Motor Mine Sweeper 132 was converted into a Wiping and Deperming Vessel to take its place.

The D.E.M.S. Organisation was under the executive control of a Captain D.E.M.S. stationed at Bombay who was responsible to FOCRIN for administrative control. A staff officer D.E.M.S. was stationed at the major ports while the Royal Indian Navy supplied officer instructors for gunnery purposes from its reserves. Rating instructors were provided by the admiralty. While all D.E.M.S. instruction came directly under Capt. D.E.M.S. (India), Officers concerned in each port were directly under N.O. I/C for purposes of discipline, leave, etc.

D.E.M.S. Organisation (India)



As soon as the war broke out a Chief Ordnance Artificer was drafted for gun mounting duties to Calcutta. Guns were mounted on three armed merchant cruisers *Carthage*, *Antonio* and *Ranpura* at the Garden Reach workshops. Hundreds of other Allied merchant ships calling at Calcutta were fitted with guns. It was a hectic job and sometimes done in 24 hours and anywhere up and down the Hoogly, wherever the ship was anchored or tied up.

D.E.M.S. Instructional Facilities at Indian Ports

During the war period, the policy of the Admiralty was to provide training facilities for Defensive Equipment of Merchant Shipping (D.E.M.S.) personnel at the main ports of India. A factor which determined the amount of training that might be given to ratings was the length of stay of a merchant ship while discharging or loading cargo in a port. For that reason, the important ports of Bombay, Madras and Calcutta provided the main facilities not only for training but also for gun mounting, gun inspection work and services in connection with naval armament stores.

Gun training facilities are briefly enumerated port by port:—

Karachi. Arrangements were made to train D.E.M.S. and M.R.A. (Marine Regiment Artillery) personnel at H.M.I.S. *Himalaya*,

Manora. Equipment available of particular usefulness for D.E.M.S. ratings included 4" B. L. Mk IX, 3" 20 Cwt. 12 pdr. 12 Cwt. H. A./L. A., 20 m.m. Oerlikon, .5 machine gun, .303 weapons and Holeman Projectors. For eye-shooting, a fully equipped Dome Teacher and Miniature Tracer firing range were available. An Air Recognition Centre and associated equipment were made available and a 35 mm Sound Projector showed suitable Instructional films. Four Excellent Pattern II Towed Targets were available together with a high speed. Air Sea Rescue launch capable of towing a high speed E Boat Target. Aircraft Co-operation was with the Royal Air Force. 14 Target Towing Aircraft eventually became available.

Bombay. This was the Headquarters of the D.E.M.S. Organisation in India which was under the control of a Captain R.N. The A. A. Training Centre was situated at Colaba Point and facilities existed for close range A.A. firings at Aircraft Towed Targets. The first Dome Teacher constructed in India was also in operation at Colaba. In 1943 an L.A. School was added and equipment included 4" B.L. Mk IX, 4" Q. F. Mk XIX, 12 Pdr. HA/LA and single Bofors. R.I.N. provided the Officer Instructors while ratings were provided from R.N. resources. The Aircraft Recognition Section for Bombay was situated at that school. The equipment installed, included a Hunt Teacher Epidiastope, and Shadowgraph. Up to 21 October 1943 officers and ratings from 934 ships were trained.

Calcutta. The D.E.M.S. Training Centre here was situated near the Combined Base Barracks and Gunnery Training Establishment at Behala and consisted of a Dome Teacher and Miniature Tracer Firing Range. (M.T.R.F.). The equipment for both arrived sometime early in 1944. Other facilities in the form of Lecture Room, Stripping Room and Oerlikon Instruction were provided at the Gunnery Training Establishment. A Night Look-Out Table and an Aircraft Recognition section for the port were provided at the school. A suitable Firing Range existed about 10 miles from the Base for A.A. Firings but for some time there was a shortage of Target Towing Aircraft.

Madras. Facilities here consisted of a Lecture Room, Cinema and M.T.F.R. Building. No Dome Teacher was available but sanction existed for a Portable Dome which was installed in 1944. A Clay Pigeon Range was in use. An A.A. Range was under construction in 1943. A 30-yard moving target range was also in use. Aircraft for sleeve towing were not available. 1,417 officers and ratings were trained up to 1943.

CHAPTER IX

Home Front—3

W. A. C. (I) Naval or WRINS

The Women's Auxiliary Corps (India) was formed on 9 April 1942. Its object was to assign some of the jobs pertaining to the military service to women and thereby release men for service in the field. The Corps was constituted by means of an Ordinance No. XIII of 1942. It was first formed to provide personnel for service in the army. Later on it was expanded so as to include naval and air forces in India also. The Ordinance was, therefore, amended to enable the employment of W.A.C.(I)s for service with all the Armed forces.

The minimum age limit fixed for entry at the time of the formation of the Corps was 18. It was later realized that girls normally left the school between the ages of 16 and 17, and before attaining the age of 18, many of them joined service with civilian firms etc. In order, therefore, to facilitate their joining the Corps straight from the school and to obviate the loss of recruits who might be diverted to other employment on account of the restriction concerning the minimum age, the Ordinance was amended to lower the minimum age to 17.

In the beginning the wives and daughters of serving European personnel volunteered in sufficient numbers to take up all available appointments. As time passed and the experiment of employing women in place of men proved successful, demands for W.A.C. (I) increased enormously with the result that early in 1943 recruitment fell short of actual requirements. In the early stages, recruitment was carried out by company/platoon commanders. This system was not entirely satisfactory because such commanders were naturally more interested in obtaining recruits within their own stations. Hence early in 1943, W.A.C.(I) A.T.R.Os (Assistant Technical Recruiting Officers) were appointed to enlist women generally from all places. Towards the end of 1943, however, recruitment fell far short of the requirements, hence all possible steps were taken in the matter of publicity to further it.

The personnel employed with the R.I.N. were formed into a separate wing called the naval wing in February 1944. They were called the "WRINS"-Women's Royal Indian Naval Service. They wore naval uniform resembling the one worn by the WRNS (Women's Royal Naval Service) except that the brass buttons bore the crown and Star of India under the "foul anchor". For officers, the smart tricorne topped off a trim blue jacket and skirt, with white shirt and black tie. On the shoulders appeared initials "W.A.C. (I)" in light blue. Ratings also wore initials on their shoulders and sported the same snappy caps as worn by WREN ratings. Hot weather "rig" was equally smart with a few minor differences from its opposite number in the British service. As more and more naval personnel appeared in India, and the country became more sea-minded, its women were eager to do their bit for the navy. Enrolled Indian ladies wore white jackets and sarees with the same initials and "distinction lace" if they were officers, and initials and 'distinction badges' in the case of Auxiliaries (ratings).

Recruits joined the naval wing on general or local service terms, as cipher operators and coders, teleprinter operators, switch-board operators, stenographers, typists, clerks, confidential book correctors, mess caterers etc. Applications from experienced motor drivers were also invited. General service officers and auxiliaries, who received free accommodation and messing in addition to their pay and allowances were liable to be posted to any naval shore establishment in India (with the exception of H.M.I. Naval Office, Chittagong, which was staffed by volunteers). Local service was open to women who lived near a naval shore establishment where vacancies existed and who could carry out the duties required of them while living at home. They were not asked to serve away from their home stations, but accompanied their husbands or relatives on whom they were dependent, if the latter moved to another part of the country. If there were no R.I.N. establishments near their new homes, they were transferred to the army or R.A.F. wing of W.A.C. (I) on similar local service terms.

Pay for auxiliaries ranged from Rs. 65/- to Rs. 140/- and for officers from Rs. 150/- to Rs. 500/- Auxiliaries received an initial uniform allowance of Rs. 180/- (or Rs. 300/- if stationed where winter uniform was required). Rs. 80/- was admissible annually for replacement and Rs. 10/- monthly for upkeep of uniform. Up to Rs. 10/- monthly was admissible as a transport allowance and auxiliaries received Rs. 3/- for each occasion when night duty was performed on switch operation boards and in signal centres. Me-

dical attention was provided free and 28 days leave was granted annually. Officers received the same allowance as auxiliaries, except that the initial uniform allowance was Rs. 250/- (or Rs. 370/- if stationed where winter uniform was worn).

From June 1944, all recruits under-went two weeks' preliminary training at H.M.I.S. *Talwar* in the accommodation built for the purpose at the Signal School. A commandant and additional instructional staff were provided. The recruits were taught naval organisation, office routine, and the regulations of the R.I.N. and W.A.C.(I) Naval Wing. Those earmarked for cipher work spent another six weeks at *Talwar* in specialist training. Typing instruction was given to WRINS at the Accountant Training Office, Bombay. In November 1944 new entry training was transferred to the Inter-Service Basic W.A.C.(I) training centres which opened at Ahmednagar in November 1944 and Calcutta in January 1945. Additional WRIN instructors were allotted to both those centres where naval and W.A.C.(I) subjects were taught. Recruits were trained in a happy and pleasant atmosphere and it was not surprising that they were reluctant to leave those places on completion of courses. The WRINS unit at Ahmednagar was named H.M.I.S. *Jahanara* and the naval component of the Calcutta establishment was called H.M.I.S. *Nalini*.

Courses for officers at H.M.I.S. *Feroze* were commenced in April 1944 and were originally of fourteen days duration. Subsequently courses were increased to 24 days. 88 WRIN officers in all attended the various courses in 1944. Officers directly recruited from civil life who were required for communication duties underwent a four weeks training course in H.M.I.S. *Talwar* after completing the divisional course at H.M.I.S. *Feroze*. Administrative officers were trained at the W.A.C.(I) Officers Cadet Training Unit, Dagshai.

Serving detachment and unit officers attended refresher courses of one month's duration in Delhi. A two weeks' course was held in February 1944, at the Selection of Personnel Directorate, Meerut, to instruct 4 WRIN officers from the various ports to carry out modified tests for the selection of WRIN communication officers. It was decided that four WRIN officers should be sent to the United Kingdom for a two months' course at the Anti-Submarine Tactical Course at Liverpool. Those officers on completion of their training were appointed to act as "movers" at the Anti-Submarine Tactical School at Bombay. The Deputy Director WRINS, Chief Officer Cooper and two administrative officers also proceeded to the United

Kingdom where they were attached to Women's Royal Naval Service establishments and training centres for a period of two months to undergo a course of instruction in WRNS methods of administration and training.

First Indian service woman who visited the United Kingdom was second officer Kalyani Sen, of the Women's Royal Indian Naval Service. With Chief Officer Margarat Cooper and second Officer Phyllis Cunningham she went there at the invitation of the Admiralty to make a comparative study of training and administration in the Women's Royal Naval Service.

The Women's Royal Indian Naval Service was under the Command of the Director W.A.C.(I), Chief Commander The Countess of Carlyle, who was assisted by two Deputy Chief Commanders, Douglas and Ranga Rao. The appointment in December 1944 of Miss Ranga Rao, an Indian lady well known in educational circles, to that responsible position was a popular one. It emphasised in particular the efforts made to interest Indian women in the Corps. The Deputy Director WRINS, Chief Officer Cooper was responsible to the Director W.A.C.(I) for the administration and welfare of the WRINS at Naval Headquarters and the principal ports of India.

WRIN Headquarters at the Naval Headquarters was re-organised and for administrative purposes integrated with other branches and sections. The Deputy Director WRINS was assisted by an assistant Deputy Director, a Staff Officer to deal with the appointments of WRIN Officers, a Staff Officer who was responsible for the drafting and advancement of the WRINS, a Staff Officer to deal with all problems connected with welfare and amenities and a Civilian Gazetted Officer in the Manpower, Co-ordination and Statistics Branch to deal with matters relating to statistics and returns. Owing to the expansion of the WRINS, and the necessity which thus arose for a more direct supervision of all WRIN units, Assistant Directors were appointed in November 1944 on the Staff of the Flag Officer, Bombay and the Commodore, Bay of Bengal. These Officers were directly responsible to the Deputy Director WRINS for all units on the West Coast (Bombay, Karachi and Cochin) and the East Coast (Calcutta, Chittagong, Vizagapatam and Madras) and acted as advisers on all matters to the Flag Officer, Bombay and the Commodore, Bay of Bengal, respectively. As the strength of the auxiliaries at the port of Calcutta increased to 92 in August 1944, a second unit was formed there.

Promotion rules for the WRIN officers and advancement rules for WRINS were promulgated in January 1945. The orders laid down for commissioning of W.A.C. (I) officers as Fourth Officers for six months, until confirmed as suitable at the end of that period, came into force on 1 February 1945. The various rules and regulations relating to service in the Women's Auxiliary Corps generally, promulgated in the form of Army Instructions (India), Indian Army Orders etc. from time to time were consolidated, and a compendium of such regulations affecting the WRINS, adopted to naval conditions and in naval terminology, was prepared. The designations of "Company Commander", "Platoon Commander", and "Staff Captain" were changed during 1944 to "Detachment Officer", "Unit Officer", and "Staff Officer", respectively, in conformity with naval terminology.

WRIN hostels were opened at Karachi, Cochin and Vizagapatam. Marble Hall, a large new house in Warden Road, Bombay, was allotted to the Naval Wing to accommodate trainees and personnel serving in Bombay. WRIN officers acquired the Admiral's House as their Mess. New messes to house more officers were opened both in Bombay and Delhi.

Naval Law and Discipline in the R.I.N.

Until April 1942, all legal work at the Naval Headquarters was handled by the Naval Secretary in addition to his other duties. The necessity and importance of having a specially qualified legal officer was soon realised, and a beginning was made by appointing a Reserve Officer who had been a lawyer in civil life as Assistant Naval Secretary. Paymaster Lieutenant G. Kennedy, R.I.V.N.R., as he then was, was the first officer to be so appointed. In April 1942, this appointment was designated as Assistant Deputy Judge Advocate. He worked with the Naval Secretary and shared the legal work with him performing other secretarial duties.

In September 1942, all legal work was transferred to a separate legal branch within the Naval Secretary's department consisting of a Deputy Judge Advocate and two Assistant Deputy Judge Advocates. Paymaster Lieutenant Commander G. E. Walker, R.I.N. V.R., as he then was, was appointed as the Deputy Judge Advocate and Paymaster Lieutenant Kennedy was transferred to Bombay as the Assistant Deputy Judge Advocate. The other appointment of A.D.J.A. which was tenable in Naval Headquarters remained vacant until April 1943 when Lieutenant E. E. Jhirad, R.I.N.V.R., was appointed to this post. As the post was tenable only by an

officer of the Paymaster Branch, this officer was transferred to that branch.

In October 1943, the legal branch was redesignated the "Naval Law Branch". It was also decided that the officers of this branch should no longer belong to the Paymaster Branch but to the Special Branch. The appointments were upgraded. The D.J.A. was now designated as Judge Advocate (with the rank of Commander), A.D.J.A. in Naval Headquarters as Assistant Judge Advocate and the A.D.J.A. in Bombay as the Deputy Judge Advocate. The object of the change was that the D.J.A. should attend all courts-martial while the J.A. and A.J.A. should do the entire legal advisory work and reviews of courts-martial. It was, however, found in practice that the D.J.A. was not able to cope with all the outstanding courts-martial work and the A.J.A. was also required to proceed on tour to conduct courts-martial.

With the expansion of the service and increase in the number of courts-martial, an Assistant Deputy Judge Advocate was appointed in Bombay early in 1944. In 1945, an Assistant D.J.A. was also appointed to the staff of the Commodore, Bay of Bengal, in Calcutta, but soon after the end of hostilities this appointment was abolished.

The most important feature in the development of the legal side of the R.I.N. was the joint issue of R.I.N. Instruction 72/1943 and Admiralty Fleet Order 2810/1943. These orders laid down the mutual powers of command and discipline of the Royal Navy and Royal Indian Navy Officers and gave senior members of one service the right to give orders to the junior members of the other.

Discipline

It is not unlikely that rapid expansion of an organisation might effect certain parts of it adversely. The Royal Indian Navy was no exception to this. During the first four years of the war it expanded so rapidly that some of its integral parts took a little time to settle down. The result was a lowering in the standards of discipline. This was largely due to the following reasons :—

- (a) Influx of a large number of inexperienced officers, only a small percentage of whom had undergone a disciplinary course.
- (b) Shortage of experienced petty officers involving the necessity of promoting to this important rate men without any length of service.

- (c) Recruitment of men with little or no background of discipline or naval tradition, and the compulsion of keeping their training to the barest minimum in order to meet pressing commitments.
- (d) Lack of a regulating branch and Provost staff.
- (e) Absence of detention quarters. Imperfect understanding of the Articles of War owing to the absence of translations in the languages of the various classes of ratings.
- (f) Paucity of amenities in ships and shore establishments.
- (g) In certain cases, lack of opportunity to take active part in operations even after a long period of training and subsequent inaction.

The cumulative effect of all these factors, however, was not as great as might have been apprehended. The sympathetic understanding of the situation by the senior officers, coupled with firm measures taken early in the war in cases which threatened to undermine discipline, had a very steadying influence on the service as a whole.

With the commissioning of H.M.I.S. *Feroze* (a training establishment for new entry reserve officers) at Bombay, in December 1943, steps were taken to ensure that all officers underwent a disciplinary course. The increased intake of men permitted the recalling of other men to complete their training, and at the same time care was taken to see that the initial training of all ratings also included a disciplinary course. A Regulating Branch was also introduced in 1943, and the beneficial effect of this as well the Provost Staff was reflected in the improved Provost reports received at the Naval Headquarters. Provision for inter-service and inter-allied discipline was made and the provost officers and members of the provost establishment and the military police of the different services were given reciprocal powers of arrest. Sanction was obtained for the building of detention quarters at Bombay, but they were not ready for use till the middle of 1945. The articles of war were translated into the principal Indian languages and published. Welfare did its share of work in providing amenities and in generally improving service conditions. Cases had occurred of deserters from one Service enrolling into another. Regulations were drawn up whereby deserters were to be returned to their original service. This step minimised cases of habitual desertions.

Owing to the provision of the Naval Discipline Acts which laid down that only executive officers of the regular service could sit upon

courts martial, the holding of such courts presented considerable difficulties during the earlier years of the war. This was overcome by wartime expedients, namely, the seniority of the President was reduced from substantive Captain to Acting Commander; the legal minimum number of members was reduced from five to three, though five members continued to sit unless the Commander-in-Chief R.I.N. gave special permission for a smaller number. The safeguard requiring two ships to be present when a court martial was held was also withdrawn in the case of shore bases. Arrangements were also made with the Commander-in-Chief East Indies Station for officers of the Royal Navy, who were serving in base appointments at Indian bases, to be placed temporarily on the books of H.M.I. ships to enable them to sit on R.I.N. courts-martial.

Regulations for the discipline of land and air forces embarked in H.M. and H.M.I. ships were issued in 1945, as no such regulations then existed in respect of Indian forces. The approval of the Secretary of State was obtained in 1945 to place members of the WRINS under naval discipline, but early in 1946 it was decided by the Government not to proceed with legislation for this as the service was to be disbanded.

With the cessation of hostilities several Defence of Indian Rules and Orders affecting naval authorities were cancelled, such as:—

- (a) Navigation and Anchor Lights Order 1940.
- (b) The Darkening of Ships Order 1940.
- (c) Flare up Lights (Ships) Order 1940.

Restrictions on the movement of small craft in harbour for pleasure were also removed late in 1945.

Military Prisons

The Military Prisons established in India were meant entirely for military personnel. The army authorities made it quite clear early in the war that they had no room for naval prisoners. In 1944, however, there was a case of 4 R.I.N. ratings in the United Kingdom being sentenced to detention, which led to the forming of new legislation. These men were sent to India to serve their term of detention. According to naval law a sentence of detention could only be served in naval detention quarters or military detention barracks, and there was, therefore, no place available for sending these ratings to do their term. To overcome this difficulty a notification was issued by the Government of India, under Section 81 of the First Schedule to the Indian Navy (Discipline) Act, setting apart and declaring four cells in Indian military prisons and Indian Air

Force prisons and detention barracks at Trimulgherry as naval detention quarters. By another notification issued concurrently with the first, all rules and regulations applicable to Indian military prisons and Indian Air Force prisons and detention barracks were made applicable to the naval detention barracks also which were built in 1945 (vide para 3 above) at Marve, Bombay.

Historical Survey of R.I.N. Pay and Allowances—Officers' Pay

1936—*Revision*

The pay scales introduced in 1919 had become completely out of date in the context of the various changes that had occurred since then, more particularly the acquiring of combatant status by the naval service in 1928, which led to its being renamed as Royal Indian Navy in 1934. The main reasons which prompted a revision of pay scales were :—

- (a) The scales were not adjusted to conditions prevailing after World War I.
- (b) No changes corresponding to the revision carried out for army officers in 1928 had been made for the navy.
- (c) With the passing of the Navy (Discipline) Act and the raising of its status in 1934, the navy became the senior-most service and yet no increases in pay had followed.
- (d) The general increase in the cost of living since 1919 had made the pay scales totally inadequate, and officers were finding it difficult to maintain the standard expected of them. Financial worries were affecting the morale and efficiency of officers.
- (e) Low rates of pay failed to attract the right type of volunteers for the service.

A revised pay scale was accordingly promulgated in 1936 with the approval of the Secretary of State. The salient features of this revision were :—

- (a) The basic pay was more or less the same as for Royal Navy Officers converted at 1 sh. 6 d. to a rupee. This was in consonance with the policy adopted in respect of Indian Commissioned Officers of the Army whose pay was related to British Service Officers, serving in the United Kingdom.
- (b) An Indian allowance was introduced for officers of non-Asian domicile. This again was done on the analogy of the army.

- (c) A marriage allowance was sanctioned in respect of officers who were of or above 30 years of age. A higher rate of this allowance was approved in respect of officers of non-Asian domicile on the consideration that the cost of educating children was higher in the United Kingdom than in India.
- (d) A shore allowance was also sanctioned in respect of officers living ashore and not in a mess.

1942—*Revision*

Experience showed that the 1935-36 revision had led to certain anomalies and had also become a little out of date more particularly after the outbreak of World War II. A serious anomaly was that, with the grant of shore allowance to officers living ashore, a premium was placed on shore service, but this in turn made afloat service less attractive—a situation which could certainly not be viewed with equanimity. It also became evident that the pay scales were inadequate particularly for junior officers. It was, therefore, decided to revise the pay scales suitably. In drawing up the new pay scales the following features were kept in view:—

- (a) The Royal Indian Navy was, in comparison to the other two services, at a disadvantage because sea service was not popular as yet. Service at sea also entailed prolonged separation from families.
- (b) The educational standard on entry was higher in the navy particularly with regard to subjects like mathematics, electricity, etc. This aspect limited the field of recruitment.
- (c) Conditions of living in a ship, and even in a shore establishment, were such that there could be little, if any, difference in the basic pay of Indian and European officers.
- (d) The normal duties of a naval officer called for a sound knowledge of gunnery, navigation, engineering etc. It was, therefore, necessary to include an element of corps pay in the basic rates themselves.

The new scales introduced in 1942 were directly comparable to the Royal Indian Air Force scales up to the rank of Lieutenant Commander. For the rank of Commander and above, the army rate of corps pay for a Sapper and Miner unit was adopted. The other relevant features of age and length of service were also kept

in view in drawing up the new scales. The main features of the 1942 revision were :—

- (a) With the inclusion of an element of corps pay in the basic pay scales, it was not considered desirable to have any distinction between the executive and the engineer branches.
- (b) Two new ranks of Midshipman and Acting Sub-Lieutenant were introduced with the basic pay of Rs. 275/- p.m. and Rs. 370/- p.m., respectively, because reserve officers of these ranks were being recruited in India. Previously Midshipmen and Acting Sub-Lieutenants served their time with the Royal Navy in the U. K. and received Royal Navy rates of pay and allowances.
- (c) The rates of marriage allowance were reduced and the distinction between Asian and non-Asian officer was maintained. The stipulation that an officer should have attained the age of 30 years before qualifying for the grant of marriage allowance was removed.
- (d) The existing rate of Indian allowance was kept intact. It was decided that officers of Asian domicile could also draw the allowance when serving ashore/afloat beyond Indian limits.
- (e) Shore allowance was abolished.
- (f) Compensatory allowance was extended to all officers serving ashore in Bombay or Calcutta and in small ships having no living accommodation.
- (g) Rent for accommodation ashore was fixed at 5% and 10% of pay for single and married accommodation, respectively. The rent for accommodation on board ships and in shore messes was to be 5% of pay.
- (h) The messing allowance at Rs. 2/- per day was continued in lieu of rations to officers serving afloat.
- (i) A separation allowance was introduced for married officers serving afloat.
- (j) New stages in the pay were introduced for :
 - (i) Lieutenant Commanders after 10 years of service as such ;
 - (ii) Commanders after 2 years of service as such ; and
 - (iii) Commanders after 4 years of service as such.

The existing stage of "Commanders after 25 years total service" was abolished.

1943-44—Improvements

Certain improvements were effected in 1943-1944. These were :—

- (a) *Uniform Allowance*.—The amount was raised from Rs. 650 to Rs. 870 in 1943 and then to Rs. 930 in 1944. For Midshipmen the allowance was raised from Rs. 500 to Rs. 630 with the further proviso that an additional sum of Rs. 300 would be admissible on promotion to the rank of Sub-Lieutenant.
- (b) *Specialist Allowance*.—The rate of specialist allowance for reserve officers was increased from annas 12 per day to Rs. 1/8 per day.
- (c) *Separation Allowance*.—This allowance, which was originally admissible only to married officers serving afloat, was extended to all officers of non-Asian domicile, whose families were residing in the United Kingdom and to all officers serving overseas or in non-family stations or areas in India.
- (d) *Indian Allowance*.—This allowance which was hitherto admissible to Commissioned Officers of the rank of Sub-Lieutenant and above, was sanctioned for Midshipmen also, the rate being Rs. 50 p.m.
- (e) *War Service Increments*.—Increases in pay for prolonged War service were introduced, based on the corresponding rates in the U. K. The rate was Rs. 51/- per month on completion of 3 years of service in the case of the Lieutenants and below (and warrant officers) and Rs. 69/- per month in respect of officers of the ranks of Lieut-Commanders and Commanders. Additional sums of Rs. 17/- and Rs. 23/- per month, respectively, were admitted to the above categories on completion of each subsequent years' service.
- (f) *Combined Operations Allowance*.—This was made admissible to officers of the rank of Lieutenant and above at Re. 1/- per diem.
- (g) *Coast Craft Pay*.—This was sanctioned at the following rates :
 - (i) Lieutenant and above Rs. 2/- per day.
 - (ii) Sub-Lieutenant and below Rs. 1/5 per day.
- (h) *Instructors' Allowance*.—Rs. 38/- per month.

- (i) *Medical Officers*.—An additional pay of Rs. 50/- a month was sanctioned for medical officers seconded to the Royal Indian Navy.
- (j) *Naval Provost Organisation*.—An extra pay was approved for officers of this organisation.
- (k) *Field Allowance*.—Rs. 30/- a month when serving in full field service areas in or ex-India.
- (l) *Corps Pay*.—For Army Officers seconded to the Royal Indian Navy and electing to army rates of pay.

1945—*Changes*

Certain far-reaching changes were made in 1945. These were :—

- (a) Grant of the same rates (with effect from 1 November 1944) of marriage allowance for officers of Asian and non-Asian domicile.
- (b) Introduction of a family allowance code on the same lines as in the army. Married officers already in service were given the option of electing the family allowance code.

In addition to the above, orders were issued approving the grant of a bereavement allowance to widows and families of officers who died, and the grant of a minimum maintenance allowance to the families of deceased and missing commissioned officers of no-Asian domicile.

The effect of the various revisions was that the scales of pay of Commissioned Officers of the three Services, were brought more or less on the same level. The equilibrium was again disturbed in 1945 by the application of the British Service rates of pay to officers of non-Asian domicile in the Army and Royal Indian Air Force. This resulted in the navy pay scales being lower, with the consequent adverse effect on the morale of the naval officers.

Warrant Officers—

1936—*Revision*

The pay scales of British Warrant Officers of the Royal Indian Navy were revised as under :—

	Rupees per month
On appointment	270
After 3 years' service	290
After 6 years' service	320
After 9 years' service	340

After 12 years' service	370
After 15 years' service	390
After 18 years' service	420

These officers were, in addition, made eligible for the grant of a separation allowance of Rs. 30/- a month when serving afloat. Further, they were entitled to other allowances.

The underlying idea in revising the pay scales was to ensure that the Service would attract the right type of volunteers. As in the case of commissioned officers, the principle on which the revised rates were based was that British Warrant Officers of the Royal Indian Navy should receive a rate of pay equal to the Warrant Officers of the Royal Navy *plus* an Indian element for service in India. The Indian element was, however, merged in the basic pay and was, therefore, not paid as a separate item.

1938—*Revision*

A commissioned warrant rank was introduced in 1938. The object was to raise the status of branch officers consequent on the increasing responsibilities devolving on them. Promotion to the newly-created rank could only be made after 10 years service as a Warrant Officer.

Certain improvements were made in the pay scales of Indian Warrant Officers. While no increase was made in the initial stages, substantial improvement was made in the quantum of increments leading to a higher maximum pay. With all these increases, the rates of pay of Indian Warrant Officers were still appreciably lower than those for British Warrant Officers.

A separate scale was also laid down in respect of Warrant Schoolmasters.

1942—*Revision*

The outbreak of war in 1939 and the acceptance by the Admiralty in 1941 that the Royal Indian Navy Warrant Officers had the same status as the Royal Navy Warrant Officers, made the existing pay code of the former category completely out of date. In addition, there were certain other features which called for a total revision of the pay scales. These were :—

- (a) The existing low rates caused actual hardship to the serving personnel.
- (b) The rates were insufficient to attract Royal Navy personnel to transfer, on loan or permanently, to the Royal Indian Navy.

- (c) Warrant Officers were specially selected men of proved worth and integrity and in a sense formed the backbone of the service.

Moreover, the great practical experience possessed by them in gunnery, seamanship, etc. made them more valuable than direct entry commissioned officers.

- (d) Besides their practical experience, Warrant Officers had also to qualify professionally through stiff examinations for promotion.
- (e) The pay scales of the commissioned officers, with whom the Warrant Officers were now comparable in status, duties and responsibilities, were being revised.

In consideration of the reasons set out above, a revision of pay scales of Warrant Officers was carried out simultaneously with that of the commissioned officers in 1942. In drawing up the revised scales the general principle that service ashore should not be more attractive than service afloat was followed. In addition, the following concessions were introduced:—

- (a) *Marriage Allowance*.—Warrant Officers were granted the same rates of marriage allowance as were applicable to commissioned officers.
- (b) Indian Warrant Officers were authorised an increase in their pay of Rs. 50 a month in consideration of their improved status.
- (c) A messing allowance in lieu of rations was also approved, the rates and conditions governing its grant being the same as for the commissioned officers.
- (d) The rate of separation allowance was increased from Rs. 30 to Rs. 40 per month, and it was extended to Indian Warrant Officers under the same conditions as for the commissioned officers.
- (e) Shore allowance as such was abolished and provision of accommodation on shore was authorised on payment of rent not exceeding 5% or 10% of the salary for single or married accommodation, respectively.

1943-1944—*Revision*

In 1943, the privilege of drawing salary by cheque was extended to the Warrant Officers. In addition, the following extra allowances were sanctioned:—

- (a) An additional messing allowance at Re. 1 per day for Warrant Officers (and Midshipmen) required to join the ward-room mess.
- (b) A naval armament store allowance at Rs. 10 per month.
- (c) Compensatory allowance for Bombay and Calcutta as for commissioned Officers.
- (d) An expatriation allowance of Rs. 50 a month to Indian Warrant officers on revised rates of pay.
- (e) An instructions allowance of Rs. 10 per month.
- (f) An increase in pay for prolonged war service (introduced at the end of 1944).
- (g) A separation allowance for non-family stations as in the case of commissioned officers.

1945—*Revision*

In 1945 again basic rates of pay for Indian Warrant Officers were increased to the level of British Warrant Officers (less Rs. 75 per month representing Indian allowance). Indian allowance was made admissible to Indian Warrant Officers when serving afloat outside certain geographical limits. The rate of marriage allowance was raised to the level of that admissible for officers of non-Asian domicile. Also family allowance code was introduced with effect from 26 September 1945.

Ratings

1934—*Revision*

The basic principle of the 1934 revision of pay of the ratings, was to provide reasonable increments in case of advancement to the higher rates. This objective was sought to be achieved by reducing some of the existing rates and raising others. A common basic pay was laid down for the seaman, stoker and communication branches, and a completely new scale was introduced for the writer branch. The following pay scales were approved:—

	<i>Minimum</i>	<i>Maximum</i>
	Rs. per month	Rs. per month
(a) Seaman, Stoker and Communication Branches	20	85
(b) Engine Room Branch	20	120
(c) Artificer/Artisan Branches	35	120
(d) Writer Branch	40	100
(e) Domestic Branch	20	100
(f) Medical Branch	20	80

1937—*Revision*

The two salient features of the 1937 revision were:—

- (a) Raising the pay scales of the communications branch from Rs. 20—85 to Rs. 20—100. This was considered necessary in view of the increasing complications in the technique of naval signalling.
- (b) A new branch of electrician (W/T) was also introduced to provide highly qualified men for duty with the Royal Indian Navy wireless station then being built in Bombay. In consideration of the special qualifications required, the following scales of pay were sanctioned:—

	<i>Rs. per month</i>
Electrician (W/T), IV class	70-5-75
Electrician (W/T), III class	80-5-90
Electrician (W/T), II class	95-5-105
Electrician (W/T), I class	100-5-120
Chief Electrician	130

1938—*Revision*

An Establishment Committee was constituted in 1938 to revise the scales of pay for the artificer/artisan branches. This was considered necessary, because the personnel position in these branches had become most unsatisfactory.

1941-1942—*Revision*

Serious difficulties were experienced in the recruitment in 1941-42. By that time recruiting had been centralised under the Adjutant General in the Army Headquarters. The Director of Recruiting was convinced that unless the pay scales of sailors were increased to the level of that admissible to technical recruits in the army, all naval recruitment would come to a standstill. It was, therefore, decided that the rates of pay of the following branches should be revised:—

- (a) seaman
- (b) stoker
- (c) communication
- (d) writer

The revision of pay for these branches resulted in serious repercussions on the other branches, whose pay scales had not been revised. This led to a revision for the domestic and instructor branches, also.

1942—*Revision*

A further revision in pay was made in 1942. In the first phase the most important change that was made was to increase the pay of “boy seagoing” in all branches. The rates for “artificer apprentices” were also increased.

Subsequently, in 1942, a further revision of the pay scales of the artificer branches was undertaken. The unique position of this category of personnel made it necessary to deviate from the pay scales applicable to such highly skilled personnel of the Royal Indian Air Force in Groups I and II.

Radar Operators.—A new branch of radar operators was introduced in 1942 on the following scales of pay:—

	<i>Rs. per month</i>
Radar Operators (OD)	60
Radar Operators (AB)	65
Radar Operators (Leading)	70-5-75

1943—*Revision—Schoolmaster*

The pay scale of C.P.O. schoolmasters was raised from Rs. 95-5-130 to Rs. 150-10-200. This increase became necessary for the purpose of attracting volunteers possessing the required qualifications.

Regulating Branch.—A new branch of regulating ratings was created in 1943 on the following pay scales:—

	<i>Rs. per month</i>
Regulating Petty Officer (P.O.)	90-5-95
Master-at-Arms (C.P.O.)	100-5-110

1944—*Revision*

The following new branches were introduced in 1944:—

- (a) Artificer Branch—Direct Entry
- (b) Radio Mechanics (W)
- (c) Stores Branch
- (d) Musicians
- (e) Electrical Mechanics
- (f) Photographic and Cinema Branches

The shortage of manpower and the higher technical and educational standards required of ratings, called for a further revision of pay scales. The main features of this revision were:—

- (a) An increase in the pay of boys after 12 months.
- (b) An increase in the pay of:
 - (i) petty officers and chief petty officers in all branches except schoolmasters ;
 - (ii) artificers, artisans and electrical mechanics from 3rd class upwards.
- (c) An increase in the pay of all ratings of the engine room, domestic, medical, writer and stores branches.
- (d) Increase in the rate of non-substantive and good conduct pays.

Other Concessions introduced from time to time

Apart from the various revisions in pay scales to which a reference has been made in the preceding paragraphs, certain other concessions also were granted from time to time. These were:—

- (a) *Expatriation Allowance.*—To be admissible to ratings at Rs. 7/- to Rs. 14/- per month for:
 - (i) service in a ship operating from a base outside Indian territorial waters and not under the command of the Commander-in-Chief or R.I.N. ;
 - (ii) service at a port outside Indian territorial waters for the entire period of absence from India.
- (b) *Batta.*—Admissible to ratings when serving in H.M.I. ships—Not to be granted in conjunction with extra duty allowance and war messing allowance. Rate ranging between Rs. 5 to Rs. 11 per month.
- (c) *Extra Duty Allowance.*—Granted to sailors while serving in a Local Naval Defence Vessel. The allowance was not to be admissible during leave and refits and could be drawn only provided Batta and expatriation allowance were not drawn. Rates of extra duty pay ranged between Rs. 3/- to Rs. 10/- per month.
- (d) *War Messing Allowance.*—Was admissible at the rate of Rs. 3/- per month and was discontinued with the introduction of the new ration scale for ratings as from 1 January 1944.

Victualling of the R.I.N. through Contractors

Before World War II victualling of R.I.N. ships was done through contractors at ports. This system which worked satisfactorily in peace time was continued for the first two years of the war when

danger was remote from India's shore, and the expansion of the fighting services had not yet begun to strain the supply position in the country. In Bombay, between 1939-42, the Victualling Section in the Dockyard, under the Naval Stores Officer, was developed to a certain extent so as to cope with the victualling of ships, but eventually it proved to be inadequate. At other ports ships continued to be dependent on direct supply from the contractors.

During 1942, with war close to India's eastern ports, it became apparent that the existing contractor system could not be depended upon. Breakdown in supply was a frequent occurrence because,

- (a) contractors were unable to obtain supplies, and
- (b) rumours of possible bombing of a port upset the civilian contractor and his staff, who in some cases fled.

On such occasions the navy had to call upon the army for the supply of its urgent needs. In Calcutta, in December 1942, initiative was taken to institute a separate victualling organisation for the R.I.N., when a small staff was sanctioned. But it was soon found that this small beginning was a mere "brushing of the surface". Eventually it was decided to obtain all victualling stores for the navy from the army sources. The arrangement made was for the then Royal Indian Army Service Corps to supply naval requirements in bulk. Detailed distribution to ships and establishments was the responsibility of the Royal Indian Navy.

Base Victualling Organisation

To work out this new system in practice, a Base Victualling Organisation was formed in April 1949. Base Victualling Officers (then known as Supply Victualling Officers) were appointed at ports, and their function was to obtain and keep bulk supplies from the Royal Indian Army Supply Corps, and to make detail issue to ships and establishments, as necessary. An experienced officer of the Royal Indian Army Supply Corps was appointed at the Naval Headquarters to advise and assist the new dealings with the R.I.A.S.C. The staff and scope of the original organisation was soon inadequate and had to be increased. At the same time a Victualling Directorate was formed at the Naval Headquarters in January 1944. Base Victualling Officers were at first obtained on loan from the army. Eleven R.I.A.S.C. officers were thus appointed until such time as R.I.N. officers were trained to take over from them. Arrangements were subsequently made for a number of R.I.N. officers to undergo preliminary training at a R.I.A.S.C. depot and to attend a short supply

course with the Corps. The period for which the army officers were loaned was to last till July 1945.

Early Difficulties

With the introduction of the new system, some problems arose which included numerous complaints regarding the quality of foodstuffs supplied. There was reason to believe that some former contractors had instigated these. This was counteracted by efforts to impress on both the officers and ratings the serious food situation which faced the whole country.

Base Victualling Officers needed road and water transport of their own to ensure timely delivery of foodstuffs to shore establishments and to ships in harbour. These had to be provided. Halal mutton or goats meat had to be frozen for supply to ships with cold storage rooms. This was a problem and occasioned considerable anxiety, until the army cold storage plants were established at various ports. These new plants and the existing civilian plants were utilized for freezing fresh "halal" mutton and storing it against the requirements of the ships. Atta was one other commodity about the quality of which complaints were frequently received from all over India, and from all the three Services. As a remedial measure, a comprehensive inspection system was set up early in the war by the Quarter Master General's Branch, which was expanded from time to time, to meet the needs of the armed forces, particularly in the system of inspection, sampling, acceptance and distribution. At the time of the enquiry into the R.I.N. system of victualling in 1946, the organisation for inspection of foodstuff was itself undergoing a progressive reduction.

Standard Rations

Till 1944 ration scales in the R.I.N. were based separately for Europeans, Indians and vegetarians. On 1 January 1944, a new standard scale of rations for ratings and boys was introduced, thus providing a composite uniform scale for all classes. The new scale, though basically non-vegetarian, provided alternatives for non-meat eaters. It also provided a scale of equivalents to the standard ration articles which might be taken up optionally by commanding officers, thus catering for elasticity and variety in diets. The following factors were taken into account when the new scale was determined:—

- (a) availability;
- (b) calorific value;

- (c) palatableness ;
- (d) variability for diet purposes ; and
- (e) suitability for sea-going ships.

Other Ration Scales

In addition to the new standard scale of rations, a number of other scales were introduced to cover special cases. Some of these were army scales adapted for application to the Royal Indian Navy, while others were peculiar to the navy. The following examples will illustrate it:—

- (a) The British troops field service scale, authorised for officers serving ashore in field service areas and for Royal Navy ratings attached to the Royal Indian Navy.
- (b) The British troops basic scale, authorised for officers serving ashore in certain concessional areas in India.
- (c) A special non-cooking scale for officers and ratings serving in petrol carriers which were not allowed fires.
- (d) A special scale for extra issues for coastal forces.
- (e) The Indian troops road and rail scale for ratings travelling by rail on duty or on leave.
- (f) Army light scale and composite ration packs for landing craft personnel on combined operations.

General instructions regarding victualling and victualling accounting procedure were embodied in a Victualling Directive which was completed and issued in December 1944.

Stores Preservation and Pest Control

The R.I.N. was represented in the "Inter services Stores Preservation Organisation". Government sanction was given to the appointment of four Pest Control Officers under the Director of Victualling. These were Civilian Gazetted Officers who after training with the Chief Inspector of Stores and Clothing at Cawnpore, took up duties at various naval stores depots and victualling store-yards to control and eliminate damage to stores by biological pests. They were employed by the Victualling Directorate from April 1945 to April 1946 when they were transferred to the Naval Stores Department.

Cookery School

The R.I.N. Cookery School in H.M.I.S. *Akbar*, the Shore Training Establishment at Kolshet, Bombay, gave instructions to officers' and ships' cooks. (This school was originally started in

H.M.I.S. *Khanjar* in 1942, thence transferred to H.M.I.S. *Machli-mar* and finally to H.M.I.S. *Akbar* in 1944).

There was a bakery attached to the Cookery School where cooks were taught bread making. To begin with an R.I.A.S.C. bakery section was obtained on loan to train a proportion of cooks as instructors. A considerable number of cooks thus qualified and later on the entire instruction passed into the hands of cook instructors.

Catering and Messing

Catering and messing received considerable attention. Assistance was forthcoming from the Catering Directorate of the Quarter Master General's Branch and much of their helpful advice was incorporated in periodical "Messing Information Circulars", issued by the Victualling Directorate. Ships and shore establishments were frequently visited by the Director of Victualling and his assistant, who gave them personal advice and assistance. R.I.N. Fleet Orders and temporary memoranda were issued from time to time containing instructions to commanding officers.

With the formation of the naval wing of the Women's Auxiliary Corps (India), subsequently named Women's Royal Indian Naval Service, various naval wing hostels sprang up which required careful attention in regard to catering and diet. Complaints not attended to in time would have adversely affected recruiting. In the early stages, the difficulties were mostly owing to lack of capable mess caterers and domestic staff.

These difficulties were, however, eventually overcome with the assistance of the Indian Base General Hospital at Lucknow from where an experienced W.A.C.(I) Mess Caterer was sent to Bombay to advise on catering and diet for the R.I.N. hospital as well as the naval wing hostels. It was not till April 1945 that the appointment of a Catering Officer at the Naval Headquarters was made with the object of improving the catering and messing for officers and ratings in the R.I.N.

Mobile Victualling

When many R.I.N. ships and small craft began to operate on the Arakan Coast, in close co-operation with the army, the wisdom of placing demands through the R.I.A.S.C. was abundantly proved. In the case of ships, however, which were operating in dangerous waters, it was hazardous or impossible to undertake victualling from shore. The R.I.N. had no Victualling Store Issue Ship, but the Royal Navy undertook the responsibility of revictualling R.I.N. ships operating on the Burma coast.

Clothing and Mess Traps

Upto 1944 the provision and distribution of clothing and mess traps was the responsibility of the Naval Stores Department. It was then decided that this work should be taken over by the Victualling Branch which would be more in accordance with Royal Navy procedure. This led to a further expansion of the staff and reorganization of the Victualling Department in November 1944.

Post-War Changes

With the cessation of hostilities in August 1945, the need for maintaining stocks of supplies at the various ports diminished. Accordingly there was a change in policy which resulted in the decision to close down the Base Victualling Offices at most of the ports. The result was that the ships and establishments at those ports had to draw their supplies direct from the R.I.A.S.C. There was reversion to peacetime practice in the matter of clothing and mess traps also which once again became the responsibility of the Naval Stores Department. It was intended that Bombay on the West Coast, and Vizagapatam on the East Coast, should be retained as R.I.N. Victualling Bases so as to provide a nucleus in the event of future expansion. But with the new post-war plans for the integration of the three services in regard to rations and supplies, there was a complete reorientation of policy.

Lessons Learnt

The experiences of World War II proved :—

- (a) Food and its supply and distribution, have a direct bearing on the efficiency and morale of the service and it should be taken into account in planning, training and operations.
- (b) Service personnel must be educated in peace to appreciate the consequences of war on the world's food supply, and trained to make the best of what may be supplied to them under the circumstances.

Naval Stores Organisation in India

In 1939 the naval stores organisation like the small fleet it served, was comparatively unknown. When war broke out, like all other supply services, the Naval Stores Department was faced with tremendous problems in the matter of staff accommodation, supply and many other matters. Indeed it was doubtful whether any other organisation was so completely unprepared or so awkwardly placed in regard to the responsibilities imposed upon it. Requirements for any ship (regardless of ownership and destination), which could

not be met from normal sources of supply became the responsibility of the Naval Stores Department, if the ship was sailing in convoy.

Staff

The entire staff consisted of 2 civilian officers, 27 storehouse staff and 24 clerks. The organisation had been at this level or lower for some 40 to 50 years. The two civilian officers had "grown up" in the service from the days of the Royal Indian Marine; neither of them had any Admiralty training, or any knowledge of modern fighting equipment, or indeed of the likely requirements of a modern fighting vessel. None of the inferior staff had any technical training though they had to handle technical equipment : they had very limited experience of store keeping. In short, as a service it had no experienced core on which to expand. The whole weight of the increase of work, consequent upon the outbreak of war, fell upon the two civilian officers. Reference to the history of the R.I.N. Dockyard would provide statistics of the large number of H.M. and H.M.I. ships refitted, and auxiliary merchantmen, armed merchant cruisers, armed boarding vessels and hospital ships converted during the first months of the war. Huge supplies of stores were required for these purposes as vessels had to be brought up to a war complement of stores, while in the case of new ships, the making up of the new stores equipment for them also devolved on the Naval Stores Officer (N.S.O.).

Both the civilian officers had retired by May 1940, and there being no one to follow on, it was necessary to ask the Master General of the Ordnance Branch in India to provide one stores officer. The difficulties of obtaining suitable civilians when other services were allowing much better terms, were great. The salaries of the storehouse staff were at least 25 per cent lower than those in other services in India. The system followed was based rather on long-standing practice than on regulations and was very much out of date.

The requirements of staff in the years 1940-42 were very difficult to plan since there was no clear idea of what the commitments would be. Many authorities outside the scope of the R.I.N. administration had to be dealt with. Financial control was such that the only possible policy was of "doing what we could", and did not allow of arguing a case with the Government of India for expansion, when more than 50 per cent of the work was on account of services under His Majesty's Government, which had no definite claim upon the organisation, and in the case of the Admiralty they had stated clearly that they did not intend their ships to make re-

gular calls on the R.I.N. organisation. However, by 1943 financial control was simplified and at the end of hostilities, the staff had increased to 57 officers, 305 storehouse staff and 390 clerks.

Accommodation

In 1939 the whole of the R.I.N. organisation was centred in H.M.I. Dockyard. This included the headquarters and training establishments. In 1940 the activities of the dockyard increased considerably in dealing with the taking over of 30 local naval defence vessels, fitting out 4 Armed Merchant Cruisers, 3 Armed Boarding Vessels and 6 Hospital Ships, and there was dreadful congestion. In these early days requisitioning of sites and buildings outside the dockyard was extremely difficult. It was not until early 1941 that the Stores Department managed to secure approval for two Bulk Store Depots, some 20 miles from the Dockyard. By the end of 1942 these had been opened and four more had begun to function at other naval bases. Two more storage depots and three storage points were opened by the middle of 1943. In Bombay the covered accommodation had been increased from 190,000 square feet to approximately 500,000 square feet, plus 1,200,000 square feet of open storage by the end of 1943.

A serious handicap was that the dockyard was not served by railway. Some 1,103,000 packages were dealt with by rail and sea, and every one had to be man-handled on and off trucks—the actual tonnage dealt with running into many tens of thousands of tons, considering the large percentage of heavy lifts. The Dockyard possessed 2½ ton portable crane, during the first two years of the war. Additional requirements were on order for over two years before being met.

In the matter of spare gear for ships Naval Stores Officer was held responsible until about the end of 1943. The lack of experienced officers to deal with all the gear sent out by the Admiralty in that year for their ships was keenly felt.

Supply

The vast requirements that had to be catered for made it most difficult to establish provision of stores on a reasonable forward basis. To begin with, approximately 1,200 items had been obtained from the United Kingdom before the war and the remainder mainly through a few Ships chandlers in Bombay. The Supply Department had dealt with only a very few items such as oil, petrol, coal etc., so that naval requirements in the matter of general stores were com-

pletely unknown to them. This was very largely due to the fact that the average requirement of most of the items was too small to be dealt with by the Supply Department before the war and fell mainly within the local purchase powers of the Naval Stores Officers.

There was no proper inspection service, and no specifications or patterns existed, so that difficulties arose in June 1940 when it became necessary to obtain supplies through the Supply Department. The lack of specifications together with the vast range of non-standard articles being demanded by all types of craft, both R.I.N. as well as those outside the Service, led to confusion and delay. It was estimated that stores worth approximately 1,110 lakhs of rupees were purchased in India during the war. A very wide range of materials had to be procured for sampling, and whilst the Controller of Inspection was responsible for examining and passing all supplies, it was necessary for the Department to exercise a constant watch over these activities to ensure that reasonable standards were in fact accepted.

Planning the requirements without any guidance about the possible expenditure was extremely difficult; but in June 1940, professional officers were asked to give some kind of estimates in the matter of materials, steel, timber etc.; and this was the first real attempt at forward supply arrangements. But the ever-increasing demand on the services of the dockyard soon made even these estimates totally inadequate; also, by the time some of these supplies were received *e.g.* steel plates, the sizes and lengths were totally unsuitable for the type of work that the dockyard was expected to undertake. The sizes were based on requirements of sloops and local naval defence vessels of similar sizes—whilst, in fact, major action damage repairs to destroyers and cruisers were being undertaken. The same situation arose in regard to the range of general stores—at the beginning of the war there were some 10,000 items of regular supply, many of which were obsolete by the Royal Navy standards; these had expanded to something like 35 to 40,000 items by the end of the war.

In 1941, the Admiralty advised that all possible supplies must be obtained locally, and the Royal Indian Navy set about building up production in India. In the matter of clothing and mess traps, this had been well established by the end of the year, but the R.N. set up a Victualling Depot in Bombay, and since they were not bound to purchase through the Supply Department at that time, very soon cleaned up the R.I.N. supply of caps, badges, socks and stockings and the like resulting in serious delays in deliveries.

The professional staff of the Electrical Department was of considerable help and very soon an excellent range of electrical fittings of special Admiralty patterns were under production in Calcutta, including even very good Aldis lamps.

It was not until the end of 1941 that any real picture of the type and number of vessels it was intended to add to the fleet was known. Many training establishments were set up, requiring technical gear which could only be obtained from the U.K., and, as in the case of spare gear etc. required for repairs to H.M. ships, long delays occurred before supplies arrived from the U.K. It was not unusual in the case of training establishments for Naval Stores Officer to receive a sanction for several lakhs worth stores and gear, and break it down to items like general stores, electrical equipment etc. The result was that much time and labour had to be spent by the officers, setting up the establishments, in roughing up details of likely requirements before any demand could be made out. Meanwhile, recruitment in the Service went ahead but months elapsed before general stores requirements were met.

The control of commodities set up under the Supply Department for indigenous supplies hampered the Naval Stores Officer who was frequently advised that certain stocks, required very urgently, were reserved for the Defence Services. The R.I.N. stores organisation was still comparatively unknown. In 1942, it was suggested that the Royal Navy should set up a Common Depot with the R.I.N. so that requirements of all ships and establishments might be reasonably met. This, however, was not agreed to by the former on the ground that it was not considered necessary. It was stated that Eastern Fleet Orders required only essential operational items to be maintained. This did not, however, alter the fact that numerous ships called daily for stores of all kinds in Bombay, having been unable to get them at other bases. The Admiralty had some idea no doubt of the type of craft calling at Bombay but no idea of the range of stores held there.

By the end of 1942, the Royal Navy began to set up various shore establishments for personnel in Bombay. This added to the already heavy responsibilities of the Naval Stores Officer as he had to provide practically all that was required except buildings.

The general stores position in R.N. yards abroad became progressively worse, resulting in heavy demands on the R.I.N. The Naval Stores Officer had a large number of units of the Eastern Fleet to deal with during the period. These naturally could not all be met and the serious state of affairs, after repeated representations

to senior R.N. Officers, was eventually brought to the notice of the Admiralty with the result that in 1943, a Main Stores Depot, N.S. K.O., (Naval Stores Keeping Office) L.C.B. (Landing Craft Base) and several other special stores organisations were set up. These establishments, however, began to raise heavy demands on the Royal Indian Navy organisation due to delay in the arrival of supplies from the United Kingdom and elsewhere. The result of all this was that the supply position and forward policy were in a continual state of flux. Tremendous quantities of stores were wanted and most demands were stated to be essential for operational needs, so that it was almost impossible to discriminate and keep in stock sufficient items to meet emergency requirements. The Naval Stores Officer dealt with approximately, one million demands from ships and establishments during the war.

In May 1943, proposals were submitted for expansion based on experience of the war up to that time, on the assumption that a similar degree of demand would continue, and after several months, approval was given to this. The Admiralty sent out staff and agreed to supply all requirements. This was necessary as the Supply Department was, by then, completely unable to deal with the range of stores required from indigenous sources.

Responsibilities for Supply

It was not generally realised that R.I.N. Stores Department had to deal with regular demands from the following, in addition to its own requirements, which expanded ten to fifteen times, from the commencement of hostilities:—

- (a) R.N. ships and shore establishments.
- (b) Allied naval ships.
- (c) Merchant vessels—requirements for gun crews, telephone instruments, cleaning gear and degaussing requirements.
- (d) Hospital ships—quite a range of gear.
- (e) Hired transports—hammocks and general naval special stores for sea transport. This became a separate service under the Deputy Sea Transport Officer at the end of 1942.
- (f) Merchant Ship Repair Yards on behalf of the Director General Ship Repairs.
- (g) Victualling stores for R.N. ships and establishments up to 1942.

- (h) Supply of naval forms to all the above. Many special requirements had to be purchased or made for ships (b) to (f) above owing to the inability of owners or agents to get supplies.

There were regular calls on R.I.N. services by the Middle East Yards and Establishments and the Persian Gulf during 1941 to 1943 for bulk supplies of various commodities.

Considerable assistance was given to the R.N. authorities in storing landing craft for the initial Burma Operations, owing to the loss of most of their stocks of stores in the Bombay Explosion, and a large part was taken in kitting up special parties, forces etc. mounted in Bombay for the Burmese and Malayan campaigns.

The victualling supplies for R.N. ships were arranged by Naval Stores Officer, Bombay, until early 1942 and requirements of the R.I.N. Fleet remained Naval Stores Officer's responsibility until May 1944 when a separate service was set up.

General Observations

As the events revealed, it was essential to have a common naval stores service in Bombay by the end of 1940. More might have been achieved if it had been established earlier. If the Admiralty had come in from the commencement, much more might have been done in establishing a wider range of Admiralty pattern manufactured articles in India; as it was, orders large enough to warrant production or attract the attention of interested manufacturers could not be placed.

The setting up of the numerous Supply Depots for Royal Navy Stores in Bombay in 1943 was not the best arrangement. It led to a scramble for accommodation and stores at the expense of efficiency.

The necessity for establishing a thoroughly efficient Stores Inspection Depot was urgently felt.

NAVAL ARMAMENT SUPPLY ORGANISATION IN INDIA

Ordnance Officer R.I.N. Group Bombay

The limited ammunition requirements of the small R.I.N. fleet which existed before 1939 were catered for by the Ordnance Corps of the Indian Army. There was only one Armament Depot involved and this was in Bombay. This consisted of two sections, an Ammunition Storage Depot at Butcher's Island, and a small section on the mainland with storage for guns and spare parts and an ordnance workshop for repairs. The Officer-in-Charge of the

area arranged for the supply of, and repairs to, ammunition, guns and other armament stores for the R.I.N. He was known as the Ordnance Officer, R.I.N. Group, Bombay.

Naval Armament Supply Officer

With the outbreak of war in September 1939, and the rapid expansion of the R.I.N. fleet, there was an increased demand for guns and ammunition which were of new types peculiar to the navy. The army could no longer continue to supply the navy's requirements satisfactorily. At the request of the Government of India, the Admiralty, in April 1940, sent out an expert (Mr. P. J. Hawkins) to advise on the question of starting a Naval Armament Supply Organisation in India. The Hawkins Report led to the loan by the Admiralty of a high ranking officer to the Flag Officer Commanding, Royal Indian Navy, to plan the taking over of the Naval Armament Stores from the army. This officer (Mr. R. W. Mettall, O.B.E.) arrived in India in September 1941 and was appointed to the staff of FOCRIN at Bombay.

With the appointment of a Naval Armament Supply Officer, the gradual withdrawal of the army staff at Bombay was begun. They were relieved by British or Indian Armament Supply Staff who were civilians. But it was a slow process. Simultaneously, to meet the increasing requirements of the R.I.N. as well as H.M. ships operating in India and Far Eastern waters, stocks of ammunition, guns, gun spares and other types of naval armament stores were shipped out to India.

To find replacements for the army staff who were withdrawn was a difficult problem. The Admiralty lent a very small staff in 1942. This consisted of a few officers of the directing staff together with storehousemen for charge of stores, laboratorymen for examination of explosives and fitters for overhaul of guns. This nucleus had to train Indian personnel as clerks, storehousemen, laboratorymen and fitters. A number of Indian storehousemen and laboratorymen with previous training in the Depot at Singapore arrived in Bombay with the fall of Singapore in February 1942. They were a very valuable and welcome addition.

Formation of the Naval Armament Supply Organisation

The Master General of the Ordnance continued to be responsible generally for the naval armament and inspection services in India, and the bulk of the work was carried out by the Indian Army Ordnance Corps. But it was felt by the Naval Headquarters, the

Senior Armament Supply Officer (India), and the Deputy Director of Armament Supply, Eastern Theatre, that this should be the responsibility of the R.I.N. FOCRIN, therefore, after consultation with the Master-General of Ordnance, approached the Admiralty in September 1942 for the necessary assistance. The Admiralty agreed in March 1943 to send a nucleus of experienced staff to strengthen the proposed new Royal Indian Navy organisation.

Government of India sanction for the Armament Supply Organisation was issued in November 1943. This involved:—

- (a) Transfer of the Naval Armament and Inspection Services in India (including the Royal Indian Navy Group of the Ordnance Depot, Bombay, and the Magazine Depot at Butcher Island) from the administrative control of the Master-General of the Ordnance to the Flag Officer Commanding, R.I.N.
- (b) The merging of the Royal Navy and the Royal Indian Navy stocks.
- (c) The establishment of Naval Armament and Inspection personnel for the R.I.N. Armament Depot, Bombay.
- (d) Devising of general procedure for the new organisation.

Part of the reserves of naval explosives (including large quantities for the Royal Navy) were to continue to be stored and maintained in Army Ordnance Depots in the absence of sufficient accommodation in the Royal Indian Navy Armament Depots.

A number of Junior R.I.N.V.R. officers were trained in Bombay for assuming eventual charge of small Depots to be opened up at the various ports. Uptil then naval armament supply duties at these ports were carried out by the Base Gunnery Officers.

In 1944 and 1945 with the very rapid growth of the organisation and the planning of operations in South East Asia, a large number of trained personnel were provided from the U.K., but their number did not at any time exceed 70.

Inspection of Ammunition and Guns

Inspection of the work on Naval Armament Stores, according to Admiralty practice, was the responsibility of the Inspection Department and not that of the Armament Supply or Holding Departments. The same principle was followed in India and staff was gradually provided from the United Kingdom to replace the Army Inspectors who were doing this work at first. One army Inspector (Ordnance Mechanical Engineer) was, however, trans-

ferred by the army in September 1943 to act as the head of this side of the organisation with the rank of Commander. Other R.I.N.V.R. officers were appointed to assist after short courses in the United Kingdom. Close liaison was maintained by the Naval Ordnance Inspecting Officer, Royal Indian Navy, Bombay, with the Deputy Inspector of Naval Ordnance Colombo (on the staff of the Commander-in-Chief East Indies who visited India periodically.)

Merger of Stocks of Ammunition and Guns

At the beginning of the war all naval ammunition and guns in India were the property of the Royal Indian Navy, with the exception of a few guns and corresponding outfits of ammunition held mainly in Bombay and Calcutta on R.N. account, for the arming of Defensively Equipped Merchant Ships (D.E.M.S.) in the Far East. During the early years of the war more naval ammunition stores were shipped from the U.K. for R.I.N. ships, and also considerable quantities for the use of R.N. ships and D.E.M.S. This entailed the holding of two separate stocks in Depots with consequent duplication of ledger, which proved very wasteful in effort and led to many errors. It was accordingly agreed in 1942 between the Government of India and His Majesty's Government that all stocks should be deemed the property of the Royal Navy and should be brought on one ledger as from 1 April 1943, and that any issues to R.I.N. ships and services should be on a repayment basis and that financial adjustment should be made after the war.

Storage of Ammunition and Guns

In January 1942, at the time of the over-running of Malaya by the Japanese, it was realised that a long war in the Far East involving the use of warships based on Ceylon and India was inevitable. The Government of India was asked by His Majesty's Government to provide storage accommodation for a large quantity of naval ammunition reserves, including 10,000 tons in some central strategic depot and smaller quantities at depots conveniently sited at the various ports in India, which were likely to be used by warships of all types. The army agreed to provide for 10,000 tons at Pulgaon near Nagpur in the Central Provinces where a large army depot was then under construction and to provide storage for smaller quantities in existing depots. All this ammunition was placed under the care of the R.I.N. Armament Supply Service.

In addition to the storage and maintenance of part of the stocks of naval explosives in India in the Army Ordnance Depots, assistance

was received from the army authorities in the handling of naval explosives by army Embarkation staffs at the ports, rail transport, supply of common user items (*e. g.* 3'' mortar etc.) from army stocks in India and inspection proof of naval explosives, which could not be undertaken in Bombay pending the receipt of apparatus on order.

Depots and Administration Headquarters

The Headquarters of the R.I.N. Armament Supply Service was originally situated in Bombay and comprised a Senior Officer (Mr. Mittell) and one clerk. Co-ordination work was carried on in Delhi by the Staff Officer Gunnery at the Naval Headquarters. In December 1943 the Bombay organisation was moved to New Delhi and was absorbed as a section under the Commodore of Administration. The staff, by then, had increased to a Senior Armament Supply Officer, a Deputy and an Assistant Armament Supply Officer. This was augmented by an Officer Supervisor and 6 clerks from General Headquarters.

Bombay

R.I.N. Armament Depot, Bombay, consisted of two depots, one on the mainland having care of guns and non-explosives, ammunition and explosives of all types being stored on Butcher Island some five miles out in the harbour. This was the original depot in India and acted as the 'mother' of all the other depots to be opened up. Originally the depot on Butcher Island was designed to hold about 2,000 tons of ammunition, but many new building works for storage and laboratory facilities were carried out and stocks were built up to approximately 13,000 tons. It was necessary, in addition, to acquire three hulks for accommodation of some of this quantity and moor them off the Butcher Island. Storehouses were filled to the utmost capacity and even storage under tarpaulins in the open had to be adopted. A very valuable and necessary assistance was rendered to the Royal Navy in Bombay by the periodical docking of naval ammunition ships (Armament Supply Issuing Ships) of which there were at one time some fourteen or more. However, this involved a great deal of work by R.I.N. Armament Depot, Bombay, in unloading and supervision of docking.

On the mainland of Bombay, adjacent to the dockyard, the original storehouse workshop and main office accommodation of the original Ordnance Depot was extended to cover an area three or four times the original site, and a large godown had to be acquired in the civil port area at Carnac Bunder to accommodate the greatly increased stocks of non-explosives.

Some idea of the growth of the two depots in Bombay during the war may be gathered from the number of workmen employed which rose from 200 to approximately 2,000 in the peak period.

Pulgaon

Storage of naval ammunition of all types at the very large Army Central Ammunition Depot commenced in October 1943 when a Naval Group, which in time grew to seventeen large magazines, each capable of storing approximately 750 tons of ammunition, was formed. The army generously undertook to provide all labour and even do the accounts and consequently a staff of only three Naval Armament Supply men comprising one Junior Officer, one storehouseman and one laboratoryman, was kept there. This staff acted as a liaison party to advise the army on details of storage requirements, nomenclatures of stores, refit of repairable stocks etc. The main function of the depot was to act as a second line of reserve to Bombay by keeping stocks of ammunition for which there was no immediate day-to-day demand. The depot was also admirably placed for feeding by rail the small depots at ports such as Calcutta, Madras and Cochin.

Calcutta

Although there was no depot in Calcutta at the outbreak of war, certain stocks of guns for Defensively Equipped Merchant Ships were kept there and small supplies of ammunition were maintained in Fort William. A certain amount of work on guns and provision of ammunition was carried out by the Base Gunnery Officer with the assistance of army personnel. By October 1942, the work had grown to such an extent that a Lieutenant R.I.N.V.R., who had been trained in Bombay in naval armament supply work, was sent there to act as Officer-in-Charge of Armament Supply (short title OCAS Calcutta). Along with this officer, a small nucleus staff of storehousemen, laboratorymen, fitters and clerks was provided from Bombay. This depot grew until approximately 300 men were employed in 1945. In December 1943 an additional Officer of higher grade took over as OCAS to cope with the rapid expansion of depot facilities which ensued in 1944. Storage for guns and non-explosives was provided in requisitioned property in Garden Reach Road in Calcutta.

A Magazine Depot for storage of 500-600 tons of ammunition was built on Port Trust land at Molasses Sidings, but bulk supplies of explosives of all types were left in the Army Depots, mainly at Jamalpur, some 200 miles from Calcutta. In order rapidly to supply

ammunition to small warships calling at Calcutta, for refits and dockings, S.S. *Ashridge*, a hulk, capable of taking some 1,400 tons of ammunition, was stationed at Diamond Reach, an isolated anchorage, some 30 miles down the Hooghly river from Calcutta.

Madras

During the early part of the war some armament supply work principally in connection with the arming of D.E.M.S. and issues to local defence vessels, was carried out at the naval base, under the superintendence of the Base Gunnery Officer. Ammunition was stored in Fort St. George. In October 1943, the use of Port Trust Magazine was acquired for further storage; and with the increased activity, an Indian Civilian Junior Officer to act as OCAS, together with a small nucleus armament supply staff was sent there. More ammunition was kept under army control at their depots at Avadi, and finally Gummidipundi, where some 1,400 tons were stored. The OCAS was also responsible for all accounting for guns and gun spares and for the ammunition stored in Fort St. George (600 tons) and Port Trust Magazines (400 tons).

Karachi

In the early stages of the war, Karachi was used as a port for equipping D.E.M.S. under the Base Gunnery Officer and for local defence ship work. Here again, the work grew to such an extent that in October 1943 an English storehouseman was sent there to act as OCAS under the control of the Naval Officer-in-Charge. Guns and non-explosives stores were kept in requisitioned premises and approximately 1,000 tons of ammunition in the nearby Army Depot at Drigh Road under army charge. In 1945, just before the war ended, a Junior Officer from the United Kingdom was sent out as OCAS.

Vizagapatam

In the early days of the war a small stock of guns and ammunition was kept in the Naval Base under the control of the Base Gunnery Officer, principally for the use of local defence ships and coastal forces craft. Plans were made, however, as early as 1941 for the construction at Malakapuram, some two miles from the base, of a small ammunition depot to store warheads and depth charges for the proposed R.I.N. motor torpedo boat flotilla which never actually materialised. In 1944 with greatly increased work on coastal force craft, and with the formation of an R.N. landing craft wing, the uncompleted depot at Malakapuram was taken over in July 1944, and OCAS with a small staff was sent there to take over from

the Base Gunnery Officer and to hasten the completion of the depot. The depot was completed early in 1945 with a storage capacity for 500 tons of ammunition, together with a gun workshop, offices and non-explosives store building. With the largely increased ammunition requirements of landing craft, further storage (1,500 tons) was obtained on loan from the army in Waltair Ordnance Export Transit Depot, some 10 miles from Vizagapatam. The naval magazines in Waltair were, however, completely under the charge of the OCAS at Malakapuram who provided labour and maintained the accounts.

Chittagong

In order to cope with the supplies of ammunition to ships operating on the Arakan coast, a small depot of a very temporary nature was opened at Chittagong in June 1944 by a storehouseman, who was reinforced in October 1944 by an OCAS and small staff. Calcutta acted as a "mother" for this depot which finally closed down in June 1945, when all stores were evacuated to Calcutta.

Cochin

The amount of armament supply work at Cochin was of a very limited nature during the major part of the war. Any supplies were drawn by the Base Gunnery Officer from Bombay and kept in a magazine built in the naval base. With the formation of a landing craft base at Cochin, however, a depot of some 500 tons in size was commenced in June 1944 on Willingdon Island and almost completed by the end of the year. An OCAS with a small staff was sent there in March 1945, and reserve ammunition, guns and stores provided from Bombay.

Mandapam

In 1944 Admiralty requirement for storage of 1,500 tons for the landing craft training and operational base arose at Mandapam. It was found practicable, however to supply this base by means of an Armament Supply Issuing Ship based on Trincomalee. No actual complete shore armament supply base was, therefore, set up although a junior armament supply officer was appointed in March 1945.

Mines

Mine work in India was mainly carried out in Mine Depot Ships, one of whom *S. S. Gurna* was stationed in Bombay for about two years. Bulk stocks of mines were, however, held for some time

in one of the hulks in Bombay harbour and at Pulgaon. A project for the building or acquisition of a depot at Asonsol or Durgapur, near Calcutta, to deal with aircraft mines was dropped. All mines and their components were, however, removed from India before the end of the war.

Torpedo Depot, Mankhurd, Bombay

An excellent, up-to-date Torpedo Depot was built at Mankhurd, some 15 miles from the city of Bombay, to cope with the anticipated work on torpedoes for the proposed motor torpedo boat flotilla. When this flotilla did not materialise, the depot was loaned to the Royal Navy on 1 November 1944 and was used as an overflow depot for Colombo, to repair torpedoes for the ships of the East Indies Fleet.

Action at the end of the War

In the succeeding year, all the war bases—Calcutta, Madras, Cochin, Karachi, Mandapam, Malakapuram (Vizagapatam)—were closed down and all stores including those in army depots concentrated into three depots—Bombay (10,000 tons), Pulgaon (5,000 tons) and OETD (Ordnance Export Transit Depot) Waltair (8,500 tons) which were envisaged as post-war R.I.N. armament depots. Thus all stores with the exception of those at Pulgaon were brought under the complete control of the R.I.N. naval armament supply organisation and ammunition tonnage held was reduced by dumping to 23,500 tons.

Naval Equipment—

Staff

Reference has been made earlier to the difficulty of obtaining suitable officers, both uniformed and civilian, for the naval stores organisation in India. In 1940, the Master General of the Ordnance, however, came to the rescue and lent the Royal Indian Navy eight officers. The Admiralty eventually agreed to the loan of more officers from the United Kingdom.

Motor Transport

The following motor transport was supplied to the Royal Indian Navy :—

10 Ton Lorries ...	2	Jeeps	...21
5 Ton Lorries ...	18	Ambulances	...29
3 Ton Lorries ...	679	Workshop	
		Lorries	...12

3 Ton Chassis ...232	Breakdown
	Lorries ... 7
15 Cwt. Trucks ...366	Water Tank
	Lorries ... 7
Station Wagons ...193	Motor Cycles ...17
Staff Cars ... 29	Motor Cycle
	Combinations ... 2

It does not mean that this number of motor vehicles was in use by the Royal Indian Navy, as many of the units supplied were in replacement of vehicles which had been written off. The situation as regards supply of motor transport was quite good, but difficulty was experienced in keeping all vehicles on the road due to lack of maintenance facilities. Maintenance and repair work went sometimes beyond the resources of the local army authorities, and it became necessary to set up its own organisation, to enable the Royal Indian Navy to carry out its first-line maintenance.

Petrol, Oil and Lubricants

The Royal Indian Navy was responsible for collating estimates of all petrol, oil and lubricants for both Royal Navy and Royal Indian Navy. In this connection, the Flag Officer Commanding R.I.N. was represented on Petrol, Oil, and Lubricant Division, South East Asia Command. With the stepping up of operations in South East Asia Command, it became necessary to obtain closer liaison with the Commander-in-Chief, East Indies, as required information was not being received sufficiently in advance to permit of adequate provision being arranged. As war progressed, adequate liaison arrangements were made, and the estimating organisation was fully capable, then, of making provision for petrol, oil and lubricant requirements to keep pace with the speed of advance.

Boats : The following were supplied :—

30'	Motor cutters	7
25'	Motor cutters	12
16'	Motor Dinghies	4
32'	Service cutters	22
30'	Service cutters	33
27'	Whalers	53
Drop Keel Dinghies 16'		7
Diving Boat		1

India was short of motor boats and the position was acute. 35 foot motor cutters were coming from the Director General, Shipbuilding and Repairs, at the rate of one a month and this slowly

improved the position. A number of Diesel motor boat engines and outboard motors arrived at varying periods during 1945.

Coal

During 1944, all stocks of coal for Royal Navy, Royal Indian Navy and sea transport, were amalgamated under the control of the Principal Sea Transport Officer (India), who entered into joint handling contracts for all Indian ports, except Calcutta, where port handling was arranged by the Chief Mining Engineer, Railway Board.

Fumigation

The question of fumigation of hired transports was raised by the Deputy Principal Sea Transport Officer (India) and early in 1944 Government accorded sanction to the fumigation of His Majesty's and His Majesty's Indian ships by the cyanide method instead of sulphur. The scheme involved the following :—

- (a) Cyanide fumigation squads at Calcutta and Bombay, with suitable buildings and a qualified officer of the Royal Indian Navy. The Fumigation Officer, Bombay, was to be in general control of both ports.
- (b) In addition to fumigation of His Majesty's and His Majesty's Indian ships, the Royal Indian Navy also undertook the fumigation of hired transports.
- (c) Fumigation of commercial ships also was undertaken by the Royal Indian Navy against payment by owners.

Due to reports of damage to instruments in His Majesty's ships by cyanide, the Admiralty urged the use of carboxide until such time as they were able to carry out thorough tests. This was agreed to and the first shipment of carboxide came in March 1945.

Air Conditioning and Refrigeration

The supply of air conditioning units was arranged for Anti Submarine Fixed Defence Station, Madras, Anti-Submarine Fixed Defence Station, Vizagapatam, Type X room, Calcutta, Anti-Submarine Fixed Defence Station, Calcutta, Range Finder Shop, Gun Mounting Depot, Bombay, and Anti-Submarine Training Centre, Bombay. These supplies did not include air-conditioning fitted as part of work projects.

Air conditioning of sick bays in sloops was decided upon in 1944, but the plant was not expected to arrive until late in 1945. At an inter-services meeting held in the Engineer-in-Chief's Branch

in February, 1945, to decide priorities for air conditioning of hospitals, Royal Indian Navy sloops were placed at the top of the list. It was anticipated that, with that priority, it was possible to air-condition the sick bay of each sloop immediately she was available for re-fit.

Salvage

Prior to 1945, few salvage facilities existed in the Indian waters. Sanction was, therefore, obtained in April 1943 to form a Naval Salvage Organisation under the control of the Flag Officer Commanding, Royal Indian Navy. The organisation was administered by a Chief Salvage Officer in Bombay with Assistant Salvage Officers in Calcutta, Madras, Vizagapatam and Chittagong. Two specially equipped salvage ships, the *Bhadravati* and *Chinthe* were adapted and proved invaluable for the work. The latter unfortunately sank in dock but was salvaged soon.

In addition to the R.I.N. salvage vessels, a special scheme earmarked one of the best ocean-going Port Trust tugs, at each of the six major ports, as emergency rescue tugs. These proceeded as and when required with an augmented crew, and with one of the Assistant Salvage Officers to act as adviser to the Master.

The work of the organisation during the war included the following salvages : Mine Sweeper No. 154 : S.S. *Agiogi Victores* : S.S. *Unita* : S.S. *Ashridge* : S.S. *Jeanette Skinner* : S.S. *Ashralion* : S.S. *Samida* : S.S. *William B. Ogden* : H.M.I.S. *Karachi* : Motor Launch 830 : H.M.I.S. *Shillong*. In addition, various small craft and aircraft received aid, varying from minor assistance to major salvage operations.

In the Bombay Explosion, distinguished service was rendered by all the available salvage staff, both at the time and during the subsequent reconstruction period. Commander Longmire, R.I. N.R., the Chief Salvage Officer, nearly lost his life and was not out of danger for some time before recovery was assured.

Research and Development

In October 1944, Government of India agreed to the establishment of a Directorate of Admiralty Research and Development (D.A.R.D.(I)), under the administrative control of the Flag Officer Commanding, Royal Indian Navy, who was acting as agent for the Admiralty for this purpose. The Directorate had its headquarters in New Delhi, a Warrant Officer in the Royal Indian Navy Office, Bombay, and Technical Officers available for duty at the

various ports and bases in India, as required by the programme of work.

The Directorate received requirements for research or development, to be undertaken, from the Commander-in-Chief, East Indies, and the Flag Officer Commanding, Royal Indian Navy, and in this connection, Liaison Officers were stationed at Colombo, Kandy and Trincomalee.

The programme of work undertaken, covered fifteen main items as follows :—

- R 1—Ordnance, Gunnery and Explosive Stores
- R 2—Torpedoes, Mining and Minesweeping
- R 3—Submarine Weapons and Equipment
- R 4—Anti-Submarine Weapons and Equipment
- R 5—Electrical Equipment
- R 6—Combined Operations—Equipment and Stores
- R 7—Special Craft and Equipment
- R 8—Navigation, Equipment and Instruments
- R 9—Waves and Beach Study
- R10—Chemical Investigations
- R11—Biological and Mycological Investigations
- R12—Miscellaneous Devices
- R13—Temperature, Humidity—Habitability
- R14—Information on Enemy Weapons
- R15—Transport and Storage Conditions.

The Directorate maintained contact with the Admiralty Technical Departments and arranged an interchange of naval technical information between India and the United Kingdom.

CHAPTER X

Home Front—4

SECURITY IN THE R.I.N.

Naval Port Security Offices and Staff

In April 1943, an officer left for the United Kingdom to undergo training in security duties, and returned in October to take up office as Staff Security Officer at Naval Headquarters. At the same time, Naval Port Security Officers were appointed at Calcutta, Madras, Karachi, Chittagong, Bombay and Landing Craft Wing. Moreover, Naval Security-Intelligence Officers were appointed at other ports of India. Between October 1943 and January 1944, the R.I.N. obtained the services of Commander Campbell-Ros³, R.N.V.R., to examine and suggest improvements in Port and Shipping Security. As a result, many new security measures were undertaken to introduce a larger degree of control. The Security Branch, like other branches in the services, suffered from an acute shortage of officers. On the recommendation of the Manpower Committee in 1944, intelligence and security duties at Karachi, Cochin, Madras and Chittagong were amalgamated. Thereafter, security arrangements at the ports showed progressive improvement. The number of security ratings originally allowed in April 1944 was cut down to 14, excluding the thirty with the Landing Craft Wing.

Inter-Services Security Education Department (I.S.E.D.)

In March 1944, Commander Campbell-Ros³, R.N.V.R., and Commander Clairmonte, R.N.R., came to India to advise about the setting up of a Security Education Department in the R.I.N. Later, the Naval Security Education Department was amalgamated with the Inter-Services Security Education Department and formed part of the Inter-Services Security Directorate (I.S.S.D.). The education department consisted then of two wings—the education wing and the production wing. Commander Clairmonte, R.N.R., was appointed officer-in-charge of the Inter-Services Security Education Department and Lieut. Commander Bruce Belfrage, R.N.V.R., as head of the Inter-Services Education Department (Education Wing). With the help of the Department of Information

and Broadcasting, security education drives were conducted at all ports and important centres with great success.

Inter-Services Security Co-ordination Section (I.S.C.S.)

With the formation of Inter-Services Security Directorate under the Director of Security, India Command, a close liaison was maintained with the security authorities of the other services through the Inter-Services Security Co-ordination section to which a representative of each Service was appointed.

Inter-Services Movements Security Control Directorate (I. Mov. S.C.)

Another addition to the Inter-Services Security Directorate was the Inter-Services Movement Control Directorate, which was responsible for all questions relating to security of sea, air, and land movements and merchant shipping and seamen, and formed a link-up with, and worked on the lines of security control in, the United Kingdom. The Director of Naval Intelligence Admiralty loaned a Lieutenant Commander as a Naval representative in this department.

Inter-Services Security Board (I.S.S.B.)

The Staff Security Officer, Naval Headquarters represented the Royal Indian Navy's interests on the Inter-Services Security Board. At the time of the separation of the East Indies Fleet and the British Pacific Fleet, the Royal Naval Intelligence Officer in Delhi was appointed as a representative of the Commander-in-Chief, East Indies Station. There was also a naval officer on the permanent secretariat of the Board.

General Headquarters Security Liaison Officers were made available to the Royal Indian Navy. These officers were asked from time to time to make tours of various H.M.I. ships and establishments to advise on security and morale amongst the personnel of the R.I.N. Their work proved very valuable.

Censorship

In order to improve censorship in the Services, the Naval Adviser on Censorship, Middle East (Captain W.K. Conlon, R.N.,) visited India in January 1944, and carried out a tour of ports to contact censor authorities, service and security representatives, and civilians connected with shipping, to advise them on common problems. His visit which terminated in March 1944, was most beneficial. He was loaned to the India Command, as Naval Adviser to the Director of Civil and Services Censorship (India) (D.C. & S.C.I.) His appointment proved most advantageous as censorship of

naval mails was organised on a much sounder basis. WRINS censorship units were established at each of the ports and, in addition to being responsible for censorship of R.N. mails, they also undertook censorship of R.I.N. mails written in English.

Morale in the R.I.N.

A section at N.H.Q. was formed on 18 August 1945 to deal with questions affecting morale and to take over certain allied subjects from the Naval Law Branch. The head of the section was called the Staff Personnel Officer.

On 30 September 1946, though all censorship in the India Command ceased, particular attention was paid to morale reports received from ships and establishments and information received from other sources. These reports showed that operations in the Far East and the liberal grant of leave that was possible in many ships between July and December 1945 had a good effect on morale. Conditions of service, accommodation and messing were generally reported satisfactory. Physical fitness and medical attention were commented on very favourably from all sources. Ratings were greatly interested in their family affairs and the majority had confidence that the District Sailors', Soldiers' and Airmen's Boards were looking after the welfare of their dependents. Throughout the war, the morale of the service was indeed very high.

Welfare and Canteens

As regards welfare, there was, until early 1945, no co-ordination whatsoever, and the three Services were free to follow their own welfare activities. While taking all possible steps to ensure that adequate amenities and recreational facilities were made available to its personnel, the R.I.N. chose to concentrate its efforts mainly on family welfare. This was achieved by providing an adequate and efficient service for dealing with the multifarious problems which might adversely affect the rating's family during his service. Steps were also taken to build up a Royal Indian Navy Benevolent Association with sufficient resources to meet all possible claims upon it, whether from ratings themselves, or from their dependants. In other words, far more importance was attached by the R.I.N., in its efforts to stimulate and maintain morale, to mental confidence and contentment than to the satisfaction of physical needs and requirements, like food, amenities etc.

1939-1943

Prior to 1943 the R.I.N. had no welfare organisation. There was no money available for the provision of welfare. There was no proper system or established channel through the Naval Headquarters for dealing with civil authorities in the interest of navy personnel. Occasionally cases of very exceptional hardship were taken up by the Director of Personal Services at Naval Headquarters with the civil authorities, through the War Department. Attempts were also sometimes made by individual officers in the ships and establishments, by writing direct to the collectors, to assist in family cases, but in the absence of any proper system, or of any knowledge or official guidance as to how such matters ought to be handled, these odd attempts usually proved abortive and unsuccessful.

As regards amenities, sporadic local attempts were also made to obtain them from private organisations or through the good services of public-spirited civilians, and these attempts were sometimes successful. In general, however, very little progress was made in this direction, and when, for example, the first batches of officers and ratings were leaving India for the U.K. to man new construction ships, they were generally obliged to leave without any amenity goods whatsoever, and even without any woollen comforts. These were, of course, invariably forthcoming from the welfare organisations in the United Kingdom, so that the service at that end was usually amply catered for—after its arrival there. Later, late in 1942 and 1943 drafts were, in fact, adequately supplied with woollen comforts and sheepskin jackets, collected under the kind auspices of Lady Fitzherbert from the Red Cross and other sources.

As regards funds, the only funds available for giving monetary assistance to genuine cases of distress among R.I.N. personnel or their dependants was a small Benefit Fund. Its total resources did not at any time exceed an invested capital of 70,000, the income from which was used to dispense benevolence. The number of its beneficiaries was thus of necessity small, and the grants they received were paltry.

1943-45

Establishment of Welfare

In early 1943 provision was made for the establishment of a Welfare Organisation in Naval Headquarters. It was formed on 1 March, 1943, with the appointment of one Welfare Officer and one Welfare Accountant Officer, with the requisite office staff.

Two Welfare Touring Officers, one for the East Coast and the other for the West Coast, were shortly afterwards added. The organisation subsequently grew until, at its peak, it consisted of seven officers at naval ports (Bombay, Karachi, Chittagong, Calcutta, Vizagapatam, Madras and Cochin), an Officer-in-Charge of the R.I.N. Ratings' Rest Camp at Tindharia, an officer attached to the Fauji Dilkhush Sabha Entertainment Organisation in India, and a great many officers in ships and establishments, who were responsible for internal welfare duties. The main activities of R.I.N. Welfare from March 1943 until the end of the war may conveniently be summarised under three main heads: (a) individual and family welfare, (b) funds and amenities, and (c) the R.I.N. Benevolent Association.

(a) INDIVIDUAL AND FAMILY WELFARE—

Petitions

One of the first steps taken after the welfare organisation was set up was to issue an R.I.N. Order informing Commanding Officers that petitions of the ratings on matters relating to their or their immediate dependants, welfare should, in future, be forwarded to the Naval Headquarters. Within the first two months nearly 300 such petitions, many of them involving long and complicated negotiations with the civil authorities, were received. The two officers sanctioned for the organisation found themselves completely unable to cope with the volume of work. Within a very short time, it was necessary to obtain sanction for another officer, whose sole function was to set in motion the procedure for obtaining satisfaction or redress in family cases. Very soon he had an incredibly large number of files to deal with. Speedy results were not forthcoming, since the Service was still in the stage of feeling its way to find the most satisfactory mode of contacting the appropriate civil authorities, and settling family grievances.

The I.S.S.A.B.

Considerable use was also made of the existing army organisation, the Indian Soldiers' Board, whose title was changed, in April 1944, and was then called the Indian Sailors', Soldiers' and Airmen's Board. The Board maintained branches, called district boards, in all districts of British India, and was composed of prominent local individuals, *i.e.* Government officials, local welfare workers, vakils etc., with the Collector or Deputy Commissioner of the district always as the ex-officio chairman. The Boards were grouped under a Provincial Board and the whole was controlled

by a Headquarters Office, under the auspices of the War Department at New Delhi. In theory, their functioning was efficient, systematic, and rapid. Petitions were received by the Secretary, generally a paid official and whose office was often located in the Collector's office at the Headquarters town in the district. Where the petitions related, as 99% of them did, to remote villages in the district, they were passed on to the tehsildars concerned, who further passed them on to the local patwari, who in fact, generally did delegate his responsibility in the matter to a local welfare worker. The report reached the Service Headquarters along the same channels.

In practice, the system had grave defects, the most serious being an inevitable and, in some cases, quite inordinate delay in obtaining any answers at all. The passage of the petitions through the Board Office, the tehsildar, and the patwari to the village welfare worker, meant long delays. The experience of Naval Headquarters was that in many cases petitions remained outstanding from nine to nineteen months, without any effective action being taken. Often these petitions related to simple matters, such as permission to cut a tree or use thatching material. Another handicap was that at the level of the District Boards, very frequently its members and welfare workers, however willing and anxious to assist, lacked the necessary influence to do so. A number of cases occurred in which the Service was frankly informed that some local resident against whom a service man had formulated a complaint was "too influential a person" for the Board to deal with. Thirdly, there was the element of corruption and there were cases where the decisions of the District Boards had been influenced by coercion or greed.

But these should not lead to the impression that the Sailors', and Airmen's Boards were wholly ineffective. There were many Boards which did valuable service. It was found that, when the Collector saw a particularly deserving case or a glaring instance of inaction by the District Board, he took effective action to obtain redress.

Government Concessions

In addition, utmost care was taken to ensure that food concessions, educational concessions, tax remissions, etc. which were made available to serving personnel by the Central and Provincial Governments during the war, were brought to the notice of R.I.N. personnel through the medium of R.I.N. Fleet Orders, R.I.N. Temporary Memoranda, and printed and cyclostyled notices. Great care was

taken to ensure that these notices actually reached the ratings for whom they were intended. Full publicity was also given, through the same media, to the considerable body of legislation which was introduced during the war with the object of protecting servicemen's interests on the legal side. Many ratings were benefited in this way and the interests of others were protected in legal matters under the provisions of the Indian Soldiers' (Litigation) Act, 1925, as read with the Indian Seamen (Litigation) Rules 1944.

Inside the Service

The individual welfare of officers and ratings was directly bound up with the various terms and conditions of their service and, in particular, with the rules governing, for example, pay, pensions, and clothing. Cases in which these rules appeared to require modification or were unduly harsh, were frequently taken up, from the welfare point of view, and in many cases modifications were obtained. Notable examples of this type of work were the initial steps taken to secure free treatment on full pay for personnel suffering from tuberculosis attributable to naval service; the extension of sick leave on full pay for an indefinite period (as opposed to the earlier six months limit), the modification of certain pension rules, the modification of the whole procedure for discharge, and the grant of very generous additional clothing, without payment, to boy trainees at H.M.I.S. *Bahadur* and H.M.I.S. *Dilawar*.

Welfare Tours

Early in 1945, family welfare was pursued in a new direction when the first welfare tour was undertaken in conjunction with a recruiting tour. An officer from the Welfare Section of Naval Headquarters, accompanied by a small party of selected ratings, was sent to Southern India to contact the families of ratings, to visit local officials and to discuss service welfare matters with them. The welfare party visited Ratnagiri, Mangalore, Cannanore, Telli-cherry, Calicut, British Cochin, Ernakulam, Alleppey and Trivandrum, and at all these places the meetings which were held were attended, amid great enthusiasm, by all local Officials. A number of vexatious cases which had been pending for long periods were settled on the spot, and the families of some 800 ratings were met, mainly by personal visits to their homes, in these towns and in the small villages in the immediate neighbourhood. The tour was an unqualified success, subsequent morale reports received at the Naval Headquarters testified to the popularity of the idea amongst the ratings, and many appreciative letters were received from the families

who had been visited and on whose behalf action had been taken locally. Another result of the first welfare tour was a noticeable speed-up in time taken by the local authorities to deal with representations from Naval Headquarters.

Priority Passages

One further aspect of individual welfare which deserves to be mentioned was the Priority Passage Scheme governing the passage to India of wives of R.I.N. personnel from countries outside India. This, from its inception in 1943, was handled by the Welfare Section and a large number of priority passages were obtained on behalf of both officers and ratings.

(b) AMENITIES—

Funds

The first and most important problem which faced the new welfare organisation was that of funds. In March 1943, the R.I.N. War Purposes Fund contained only Rs. 17,000. The A.C.E.S. (Amenities, Comforts, and Entertainments for the Service) Fund, provided by the Government of India, was also meagre, which, while useful for the provision of small amenities, was quite inadequate to provide for any large-scale welfare work. The officer-in-charge of welfare came to the conclusion that very little in the way of welfare would be attempted until the service was able to get hold of adequate funds. Appeals were, therefore, made to His Excellency the Viceroy, to all the Provincial Governors, and later to the public at large, and funds were soon forthcoming on a generous scale. As a result, it was possible during the succeeding 2½ years to carry through a very considerable programme of welfare work, at a cost of over 20 lakhs of rupees.

Supply of Small Amenities

A considerable portion of this sum was expended on the provision of small amenities such as gramophones, wireless sets, sports gear, woollen comforts, and in some cases refrigerators and soda-water machines. It was the aim of Naval Headquarters that every ship, however small, should be supplied with at least one wireless set, one gramophone, and an adequate quantity of sports gear. Some difficulty was experienced in 1944 in obtaining sufficient wireless sets and gramophones to go round. This shortage, however, did not persist. Great difficulty, on the other hand, was experienced in the servicing and maintenance of wireless sets, which had to be carried out in spare time by Naval Stores Officer, Bombay, and his

staff. One difficulty which was never solved was the provision of wireless sets for motor launches and landing craft. These craft were unable to run a mains wireless set and, although exhaustive enquiries were made, an adequate supply of battery wireless sets was never available anywhere in India. Similarly, the supply of gramophones fell far below requirements. At the time of the Munster Mission to India, the R.I.N. was successful in its bid for 500 mains and battery radios, a large number of gramophones, and also for refrigerators, all from the United Kingdom, but these amenities were not forthcoming until some six months after the end of the war, when, with the reduction in the size of Service, their arrival proved more of an embarrassment than an asset.

Periodicals and Books

The welfare organisation also made itself responsible for the regular supply of reading material to the whole Service. After an initial period of difficulty with the postal services, and after the loss of many thousands of periodicals by theft in transit, an efficient distributing organisation for newspapers, magazines, and periodicals in English and in the Indian languages was built up at the Naval Headquarters, and nearly 35,000 papers were distributed each month, through service channels instead of the ordinary post. In addition, all shore establishments were provided with cash grants, to enable them to set up ratings' libraries, and books were supplied in periodical parcels to the ships afloat.

Clubs

In the early years of the war a frequent grievance was that the ratings going ashore at various ports in India had nowhere to spend their leisure hours. Welfare, therefore, undertook the setting up of a ratings' club at every port. The Cornwallis Fleet Club was built in Bombay, on a permanent scale, at a cost of nearly four lakhs of rupees. The club which was designed by an architect serving as a temporary officer in the R.I.N., was a handsome building with luxurious interior furnishings, containing two restaurants, a theatre, and a dormitory for 40 men. It was one of the finest Service clubs in India. At Chittagong, Calcutta, Vizagapatam and Cochin, temporary-style clubs were opened. No club was opened at Madras as there existed adequate club facilities for servicemen at that port. In Karachi various administrative limitations delayed the commencement of building operations, but, largely due to the generosity of His Excellency the Governor of Sind and of the Karachi Port Trust, a start was made in the middle of 1945 with the construction of a

a ratings' club, somewhat smaller than the Cornwallis Fleet Club, but on the same generous lines and designed for permanence.

Leave Facilities

Leave facilities for both officers and ratings received attention. The first step, as far as officers were concerned, was the publication of a small annual booklet containing full information about all the various hostels, clubs, etc., in all parts of India, which made special arrangements to cater for service officers on leave. In 1944, the R.I.N. opened its own Officers' Leave Hostel at Srinagar (Kashmir), and this functioned successfully throughout 1944 and 1945. The hostel was made available to junior officers of all Services. The R.I.N. was also responsible for initiating the proposal which eventually led to the grant of free road travel between Rawalpindi and Kashmir for all service personnel, both Indian and British.

A rest and convalescent camp for ratings was established at Tindharia (near Kurseong, on the Darjeeling-Himalayan Railway), but although the building was rented for over two years, administrative difficulties in obtaining Government sanction for ratings to proceed to the camp on duty, and not on leave, prevented the camp from coming into operation before the war was over.

Entertainments

Arrangements were made with the army welfare authorities to place Ensa and the Fauji Dilkhush Sabha entertainment organisation equally at the disposal of the R.I.N. Special parties were arranged to cater for the tastes of R.I.N. ratings, and these parties did invaluable work touring naval establishments and ports. In 1945, a naval officer was attached to the Fauji Dilkhush Sabha organisation in Calcutta, whose special duty it was to raise and to route Indian concert-parties for the R.I.N.

Ship Adoption

One of the most interesting features of the welfare programme was the Ship Adoption Scheme. The scheme was launched by the Flag Officer Commanding, R.I.N., in 1943, when he appealed to Governors, Princes, and business community, and in a few cases, business firms, to adopt R.I.N. ships. The idea met with conspicuous success, and all the ships whose names had territorial connections were adopted immediately. It was somewhat more difficult to get the others adopted, but this was done eventually. Many ships benefited greatly from the scheme, receiving gifts both of amenities and of money from their adopters; but looked at from a national

point of view, the main benefit derived from the scheme lay in the fact that good relations were fostered between the R.I.N. and the public, and that information about the navy was disseminated. Delegations from many districts visited their adopted ships, and, where possible, these visits were returned by the ships' companies.

"Other Purposes"

The above paragraphs illustrate the main uses to which the R.I.N. War Purposes Fund and the Government A.C.E.S. Fund were put. Money from these funds were occasionally also diverted to "other purposes" not directly connected with welfare, but which provided for the Service certain benefits for which otherwise the Government could not sanction funds. Thus the War Purposes Fund gave a grant to the R.I.N. Hospital at Sewri for the purchase of a motor ambulance for the conveyance of officers' or ratings' wives from their residences in Bombay to the hospital; another grant was given from the War Purposes Fund to assist in financing the three so-called R.I.N. hostels, set up for the education of the sons of servicemen at Ratnagiri, Dapoli and Sangameshwar, and many grants were made as R.I.N. contributions, towards the financing of inter-service projects.

Dockyard Welfare

The R.I.N. War Purposes Fund financed the more important of the dockyard welfare schemes, namely, the provision of amenities in the dockyard hospital, clinic, children's creche, and so on, to the extent of over a lakh of rupees.

Sports Fund

Mention may be made of two other funds administered by Welfare—the R.I.N. Sports Fund and the R.I.N. Band Fund. The former was collected entirely from subscriptions paid by officers and ratings and was used for providing sports gear and for the maintenance of sports fields, tennis courts, etc.

Band Fund

The R.I.N. Band Fund was managed by Welfare Section from its commencement until the R.I.N. Band was actually formed. Subscriptions were collected from officers of the Service, and public appeals were also made. Within a short time a fairly large sum had been collected to enable the Service to purchase instruments for a band of over 50 musicians. Government sanction was accorded in 1944 to the creation of Musician Branch and to the formation of

the R.I.N. Band itself, and a Lieutenant was recruited into the Special Branch of the R.I.N.V.R. as Director of Music. In 1945, after the band instruments had been paid for, at a cost of about Rs. 40,000, the remainder of the fund, about 20,000/-, was handed over to the Flag Officer, Bombay, in whom administration of the band was then vested.

R.I.N. Maintenance Fund

In early 1945, the R.I.N. Maintenance Fund was established. The purpose of this fund was to collect an invested capital of at least 10 lakhs of rupees, the interest from which would be used in the post-war years to maintain those clubs, libraries, sports grounds, and other welfare institutions which the Service had been able to acquire for itself during the war. It then amounted to some seven lakhs of rupees.

(c) THE R.I.N. BENEVOLENT ASSOCIATION—

Purpose

Early in 1943 the R.I.N. Benefit Fund was reconstituted as "The R.I.N. Benevolent Association" and was registered under the Societies Act (1860). The aim of the Association, as stated in the Memorandum of Association, was the "relief of distress" among past and present officers and ratings of the Royal Indian Navy, Royal Indian Marine, Royal Indian Navy Reserve, Royal Indian Naval Volunteer Reserve and Royal Indian Fleet Reserve, and their dependants. A number of amendments to the Memorandum of Association and to the rules were subsequently made, the chief of these being the substitution of the words "hardship or distress" for "distress" and the inclusion of officers and auxiliaries of the WRINS and of nursing sisters of the R.I.N. Hospital, as potential beneficiaries.

Collection of Funds

In January 1944 the Welfare Section, having collected about 15 lakhs of rupees for amenity purposes, turned its attention to funds for the Benevolent Association, and an intensive drive was started. The target was set by Admiral Godfrey at 20 lakhs of rupees, a figure which, invested at 3%, would give the Association a permanent annual income of some Rs. 60,000 for benevolent purposes. The target figure was regarded as extremely high, but no efforts were spared to ensure that it should be attained. Appeals, signed by the Flag Officer Commanding, were made to almost every section of the people of India, and without exception they responded munificently.

In a space of 16 months, the total of 20 lakhs was reached and passed. The final subscription lists included the names of the Viceroy, all the Provincial Governors, many of the Indian Princes, Indian and British business firms, clubs, zamindars, cinema proprietors, churches, army units, and countless private individuals. A large subscription was also received from the King George's Fund for sailors in the United Kingdom.

The figures of actual collection show the rate at which money for the R.I.N. Benevolent Association was received. It will be seen that towards the end of 1944 over two lakhs per month was received regularly. The average for 1944 amounted to Rs. 4,000 collected every day of the year. The Flag Officer Commanding stated at a general meeting of the Benevolent Association that in his opinion no better manifestation of the high regard in which the people of India held their navy was required than the way in which they had supported its collection of funds for the Benevolent Association.

Expansion of Activities

As the funds of the Benevolent Association grew, so also did its activities expand. Perhaps equally important with the growth of its resources was the fashion in which between 1943 and 1945 the Association, a non-official body, carrying out its functions with private funds, was gradually woven into the administrative fabric of the Service, and became as much an integral part of the Naval Headquarters, and of the Service, as any of the administrative sections. Great care was taken to ensure that no deserving case went unassisted. A departure was made from the usual practice among charitable associations of taking no cognisance of hardship or distress unless the victim himself appealed for assistance. To this end, arrangements were made for the Medical Board papers of all ratings invalided from the service to pass first through the office of the Benevolent Association, and if it was possible for any assistance to be given to the ratings (especially further medical treatment at the Association's expense) then action was taken without waiting for an actual appeal from him. The Association speedily became known for the good work it was doing, ratings showed keen appreciation of it, and the number of its beneficiaries rose steadily from a few dozen to some 800. These include widows and families not eligible for service pensions, families whose service pensions were inadequate, those whose pensions were due but delayed, ex-ratings maintained in hospital for treatment for tuberculosis, leprosy, mental complaints, and so on.

R.I.N. CANTEENS

At the outbreak of war there was only one shore canteen in the Royal Indian Navy. It was accommodated in a small building inside the Dockyard at Bombay. In conformity with the usual practice of canteen administration in India, a contractor was responsible for the running of that canteen, stores being purchased by him from the Canteen Contractors' Syndicate. As the Royal Indian Navy expanded and acquired additional training establishments and operational bases, more shore canteens were opened on the contractor system, while ships purchased their requirements direct from the Canteen Contractors' Syndicate installations at the ports.

Towards the end of 1940 it was realised that the contractor system of canteen management, apart altogether from its normal and expected defects, was, as far as the R.I.N. was concerned, wholly unsatisfactory and unable to meet the particular requirements of the Service. Commanding Officers of most of H.M.I. ships and establishments had throughout displayed a desire to conduct their canteens on service lines. The opinion generally prevailed that the contractor system, though running on well-established and professionally efficient lines, was not satisfactory, in that it lent itself to abuses and tended to make divisional and other junior officers lose interest in the canteens aspect of their ratings' welfare. In addition, commanding officers found the Canteen Contractors' Syndicate frequently unable to meet urgent demands for canteen stores during the short periods that the ships were able to spend in the port. It was, therefore, decided that the Service should establish and manage its own ratings' canteens, as far as possible, and a beginning was made in this direction. By September 1942 there were nine ratings' canteens, and one families' canteen (or retail grocery shop) in Bombay all conducted on service lines with the assistance of civilian managers.

The New Policy

It was not until September 1943 that a Canteens Section was established at the Naval Headquarters, this being the first step towards the formation of an efficient canteens service within the navy. The section formed part of the Personnel Department and consisted of one reserve officer at the Naval Headquarters and one touring officer based on Bombay. The officer at the Naval Headquarters was specially selected on account of his experience in the retail trade in civilian life. The organisation was subsequently expanded by

the addition of a staff officer at the Naval Headquarters, another touring Officer and two officers as Canteen Warehouse Managers in Bombay and Calcutta.

A long-term canteen policy for the Royal Indian Navy was then laid down. It consisted briefly of the building up a service-controlled wholesale and retail canteen administration. Canteen supplies were to be taken over in bulk from the Canteen Stores Department, and from that point their distribution, down to the final individual sale, was to be controlled by the Service, and all net profits derived from the sales were to accrue to the Service. In order to disrupt the existing supply procedure as little as possible, it was decided not to make an abrupt switch-over, but to transfer existing canteens gradually to the new system, and to ensure that all new canteens were opened in accordance with this principle.

To implement this policy, it was necessary that funds should be made available for the establishment of new canteens and for the improvement of those already existing. Accordingly, in November 1943, the Royal Indian Navy Canteens Improvement Fund was established by means of an advance of 3 lakhs of rupees from the R.I.N. War Purposes Fund. Cash grants from the improvement fund were made to ships and establishments, and the standard of existing canteens was greatly improved. In addition, between 1943 and March 1945, over 40 new service-run canteens were opened in H.M.I. ships and establishments, and by that date 95% of all ships and establishments were provided with canteen facilities.

The distribution of the bulk supplies purchased from the Canteen Stores Department required the establishment of R.I.N. Canteen Warehouses at the various ports. These warehouses, the equivalent of Canteen Bulk Issue Depots, were established in Bombay, Calcutta, Karachi, Jamnagar, Vizagapatam and Madras. In December 1943, the Quarter Master General in India authorised R.I.N. Canteen Warehouses to purchase canteen stores at wholesale prices, thus enabling canteens in the R.I.N. to compete with contractors on equal terms and making possible the employment of a nucleus of civilian managers on attractive rates of pay.

By the middle of 1945, the canteen organisation had gone long past the experimental stage. Of the 95 canteens in the R.I.N., only three were then run by canteen contractors, and these were in the ports in which an approved contractor had been granted monopoly of all canteen supplies. The R.I.N. was thus in the position of being the only Service in the India Command (Indian or British) which ran its own wholesale and retail canteens organisation. This

was undoubtedly the greatest benefit to the Service, and the psychological benefit of an honestly administered canteen service was well worth the additional trouble involved, and far outweighed the monetary benefit accruing to the Service. Visitors to R.I.N. canteens had on a number of occasions commented upon the extremely high standard of cleanliness and comfort achieved in them. The successful establishment and operation of this service-run canteen organisation effectively dispelled the notion that contractors in India were indispensable. It proved that a service could run its canteens organisation successfully from a financial point of view. At the end of the war R.I.N. canteens were yielding a dividend (from profits) of Rs. 2,500 per month or 15% per annum. This money was paid into welfare funds, to be used for the benefit of the personnel of the service, and, in addition, over one lakh borrowed for the establishment of the Canteens Improvement Fund had been repaid.

MEDICAL CARE IN THE R.I.N.

Till 1942 members of the Indian Medical Department were seconded to the navy, but due to shortage of personnel and because of their own needs, the army was unable to second any more Warrant Officers of the Indian Medical Department. Instead, Emergency Commissioned Officers of the Indian Medical Service were selected from volunteers for secondment to the navy. This went on for about a year. At first, it appeared to be satisfactory, but later, the quality and number of volunteers for the navy began to fall. The Director General, Indian Medical Service, approached the Government and obtained sanction for direct recruitment to the Navy. This supplied the R.I.N. with medical officers who were keen to serve in the navy and gave a wider range of selection. Medical officers in the army were still seconded to serve in the navy, if they volunteered to do, and a few were taken in from time to time from that source. Emergency Commissioned Officers (E.C.Os.) of the I.M.S. began to be seconded to the R.I.N. from the latter half of 1942. In 1943, the army opened the Army Medical Training Centre (A.M.T.C.), at Poona and medical officers who joined the navy through the army had usually completed this course.¹

In 1944, a Medical Branch of the Royal Indian Naval Voluntary Reserve (R.I.N.V.R.) was formed consisting of officers of the I.M.S. (E.C.O.) and I.A.M.C. who had been seconded to the

¹ For detailed account see chapter III. *Official History of the Indian Armed Forces in the Second World War 1939-45, Medical Services*, published by the Combined Inter-Services Historical Section, India and Pakistan.

R.I.N. When direct recruitment of medical officers to the navy was opened, the new entrants were given a divisional officers' course of training at H.M.I.S. *Feroze*. Regular I.M.D. officers continued to serve in the navy as R.I.N. officers.

There were no other courses for medical officers in the navy. The Medical Directorate organised courses on various subjects for their medical officers; but these were not open to naval medical officers on account of the objections of the Finance Department. Later on, Finance agreed to permit one medical officer at a time to attend the army courses of instructions in malaria and in venereal diseases. There were altogether five medical officers who ultimately attended these courses. The courses in malaria were held in Malaria Institute, Delhi, and those for Venereal diseases at the General Hospital, Bangalore.

The system of appointing specialists in various branches of medicine and surgery did not exist in the Royal Indian Navy, nor was the system of graded specialists recognised. There were many medical officers of the status of specialists or at least of graded specialists in medicine, surgery, public health, ophthalmology and pathology, but they were denied this privilege. To obtain expert opinion and treatment, the R.I.N. appointed consultants from among the leading specialists in Bombay. They were given honorary naval ranks and were attached to the R.I.N. Hospital. They gave approximately three mornings a week of their valuable time to the R.I.N.

Sick Berth Attendants

Sick Berth Attendants were recruited directly for this branch. The educational standards required were matriculation or its equivalent. The response of volunteers to this branch was low and the entry was small. In 1943 the pay scale was favourably revised and the educational standard was lowered. There were also a few modifications in the physical standards. The result of modification in the standards and the rise of pay was that more men were available and the quota of Sick Berth Attendants was kept up. There was, of necessity, a sacrifice of quality for quantity, but the large number that trained for the navy was in consonance with the principle of rapid expansion which was essential for winning the war.

The demand for Sick Berth Attendants grew as war progressed. Many small ships of the R.I.N. carried Sick Berth Attendants who, apart from attending to minor ailments, were called to treat serious injuries received in action. This necessitated a proper training of

the Sick Berth Attendants; hence a training establishment known as a S.B.A. Training Establishment, was opened in 1943 in Bombay. First it was housed in the gymnasium hall in Castle Barracks where instructions and demonstrations were given, and later it moved to the R.I.N. Hospital at Sewri. The programme of training was so arranged as to give them a good grounding in elementary anatomy, physiology, first aid and general sick nursing.

Medical Personnel and Equipment of Ships

Sloops of the R.I.N. carried one medical officer each. The ships had a complement of 210 to 250 officers and men and their duties entailed being at sea for a period extending up to three weeks in company with other ships, not carrying medical officers. Hence the medical officers had to be independent as far as they could in all matters including medical aid. The medical stores and equipment carried on board was of a comprehensive nature and included a large range of instruments and medicines to deal with most illnesses and emergencies on board.

The duties of the medical officers consisted of maintaining the ships company in health and countering threat to their well being. They arranged and organised for medical aid in emergencies and accidents either on board their own ships or in others in company. They also gave lectures and demonstrations in first aid and general principles of hygiene to the ship's company, to make them capable of rendering first aid when called upon to do so in an emergency. Lectures were also given on the prevention of venereal diseases.

For the assistance of medical officers on board there were two Sick Berth Attendants, one usually of the leading rate or even the petty officer rate (P.O.) and the other a S.B.A.I or S.B.A. II. They acted as nursing orderlies carrying out the treatment as ordered by the medical officer, and kept the sick bay clean. The Sick Bay Attendant had considerable influence over the rest of the ship's company who looked upon him with friendly respect. He was a great help in organising and helping in the running of lectures and demonstrations. During action, the S.B. As. were in charge of stretcher parties. They rendered first aid and transported the wounded to the sick bay for attention by the medical officer.

There was difficulty regarding stores of medical equipment in ships afloat. Immediately on the declaration of war the R.I.N. ships worked with, and under the orders of, the Royal Navy in various theatres, for example, Persian Gulf, Aden and the Red Sea. The Indian ships were, however, not fitted medically on the same

scales as the R.N., the difference being considerable. The R.I.N. scales of medical stores and equipment were similar to the army and tended to be based more on the numbers of men to be looked after rather than on the idea of an independent unit or the nature of its duties. Parity with R.N., in medical equipment in the ship was necessary as the two navies were working in conjunction and there was reciprocity in the matter of medical aids and medical duties. To secure such a parity the Flag Officer Commanding, Royal Indian Navy, sanctioned making up of medical stores in R.I.N. ships up to the standard of Royal Navy by local purchase of articles and equipment required.

The Royal Indian Naval Hospital

Till 1943, the R.I.N. had no hospital of its own and, therefore, had to depend on the military or civil hospitals for the treatment of their cases. St. George's Hospital, Bombay, placed one of its wards at the complete disposal of the navy. Consequent on the expansion of the Service after the outbreak of war, the numbers of patients requiring hospitalisation rose. The military hospitals, because of their own needs, were hard put to provide for the navy also. It was first proposed to take over the St. George's Hospital, Bombay, for naval use jointly with the R.N., but the negotiations were dropped as it meant depriving the civilian population of the hospital. The completed buildings of the Ramesh Premchand Sanatorium, Sewri, Bombay were placed at the disposal of the R.I.N. Though completed in 1940, the buildings were not equipped or furnished, perhaps due to the outbreak of war. Negotiations were taken up with the Bombay Corporation and the buildings were acquired for a 250-bed hospital for the R.I.N. It continued to be the only well-organised hospital for the Indian Navy in the country till it closed down in 1946 after the close of the war, when a R.I.N. wing of 120 beds was opened in the Combined Military Hospital (C.M.H.), Colaba, Bombay.

Campaigns

The Royal Indian Navy operated in almost all theatres of war extending from the North and South Atlantic in the west to the Java Sea and the Pacific Ocean in the east. Ships carried a medical officer and had a fairly roomy sick bay stocked with medical drugs and equipment.

1939-40

At the outbreak of war three sloops of the R.I.N. were attached to the R.N. and did duty in the Persian Gulf, Aden and the Medi-

terranean. Medical arrangements were in common with the R.N. who had Base Hospitals at various ports in the Persian Gulf and the Red Sea, to which all the R.I.N. sick were sent for hospitalisation and treatment.

1941-42

Ships of the R.I.N. took part in patrolling and escort duties in the Indian Ocean, the Red Sea and the Persian Gulf. They also took part in the recapture of Berbera and cleared mines from the harbour of Massawa, and were generally active up and down the coast of North Africa. Medical arrangements were similar to those in the Persian Gulf region. Two sloops of the R.I.N. took part in the Battle of the Java Seas. The *Sutlej* picked up a large number of survivors. The *Jumna* too was busy in anti-aircraft and anti-submarine patrols and suffered many casualties. All sick from these ships were landed ashore in Singapore. The *Jumna* and the *Sutlej* also took part in the landing of the Allied armies in Sicily. The main work was convoy duties and bombarding shore batteries and affording fire cover to landing troops. Medical cover was provided in both the ships. Evacuation and hospitalisation was carried out by the R.N.

1943

H.M.I.S. *Narbada* and *Godavari* did escort duty in the Atlantic with the R.N. They depended on the latter for their medical supplies, transfer and hospitalisation ashore to naval hospitals. Ships in Red Sea, Persian Gulf and those in Burmese and Indian waters were chiefly engaged in patrol and convoy duties. They were based on ports where the local sick bay of hospital looked after the R.I.N. sick. A few of the ships of the R.I.N. were completely self-sufficient in point of medical cover.

1944-45

Navy played an important part in the Burma operations, the R.I.N. specially with its landing craft wing. In respect of the latter, medical arrangements were divided between R.I.N. and the Indian army consisting of Squadron Medical Officers for the Landing Craft Wing and Senior Medical Officer for the Headquarters Base. The Squadron Medical Officers were equipped with a minimum of essential stores and equipment to enable them to travel light. For evacuation of casualties and hospitalisation navy depended on the army. Medical arrangements on the whole worked well during the Burma operations.

Naval Surgeon awarded M.B.E.

Two difficult surgical operations performed at sea while a convoy was proceeding through enemy-infested waters in the Atlantic earned for Surgeon Lieutenant Chandra M. Dave, R.I.N.V.R., the M.B.E. (Military Division). In the words of the Commanding Officer of H.M.I.Sloop "his conduct and bearing, together with his surgical skill, have been of the highest order throughout these operations."

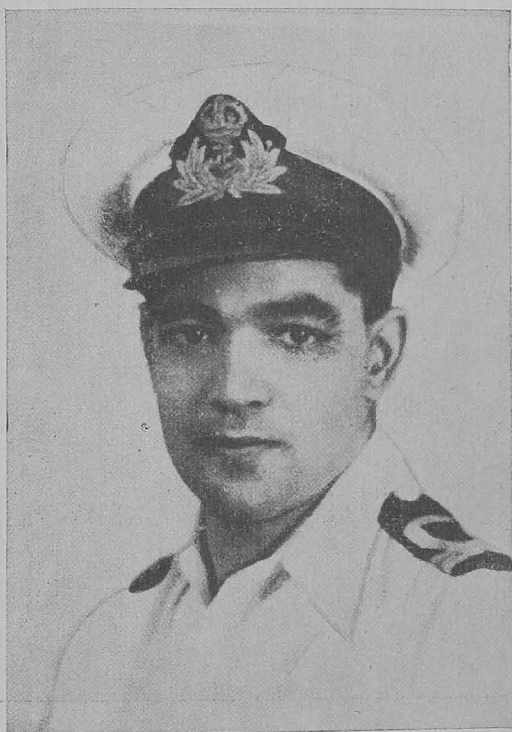
H.M.I. DOCKYARD BOMBAY

Visiting Bombay dockyard in 1775, a traveller named Parsons spoke highly of it. "Bombay boasts such a dry dock as perhaps is not to be seen in any part of Europe, either for size or convenient situation". If Parsons had seen the dockyard during World War II, he would have been still more eloquent. Almost every campaign of the last 200 years from China and Abyssinia, between Egypt and the Cape of Good Hope, depended in some measure on Bombay for its fitting out and repairing of ships. Though the change from sail to steam greatly affected the fortunes of the dockyard, the world wars supplied a strong impetus to ship building and repairing. World War II, in particular, gave Bombay dockyard an importance never exceeded in the past. With Hong Kong and Singapore lost, it became almost the only naval dockyard in the northern hemisphere, east of the Suez, and Bombay workers repaired ships damaged in actions from the Mediterranean to the Coral Sea.

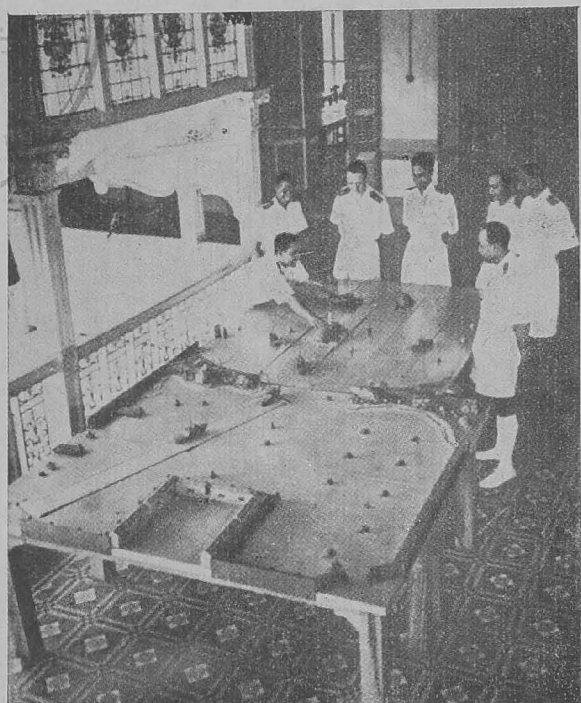
The outbreak of war in September 1939 found the dockyard lacking in both men and equipment for the immense tasks ahead, but it rose to the occasion. Though much hampered by having within its limits the depots, gunnery school, mechanical training and other establishments, the dockyard became a self-contained unit well-equipped with the machinery and gear, which were required for the handling of naval repairs. During the weeks before Hitler marched into Poland, the limited resources were working at full belt to make the ships of the Royal Indian Navy and its requisitioned vessels "in all respects ready for war". With men and machines working day and night, 17 vessels were handled concurrently in the first ten days of the war, with facilities designed for a much smaller number.

H.M.I. Dockyard was a civilian establishment in a service background and acted as a front-line organisation which performed the same functions of repair and maintenance towards warships as were carried out by those who looked after tanks, motor transport

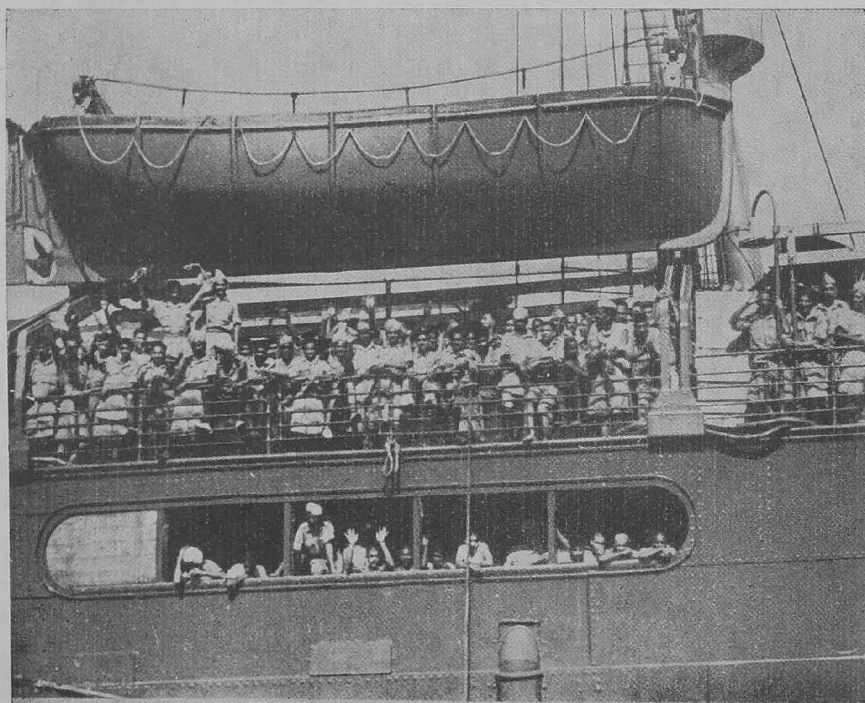
C.P.O. Moina Imam,
WRIN



Surg. Lieut. C. M. Dave,
M.B.E., R.I.N.V.R.



Lieut. N. Krishnan, D.S.C., R.I.N.,
explains a problem of navigation to recruits for the
Instructor Branch in H.M.I.S. *Feroze*, Bombay



A contingent of Indian troops leaving for overseas

and aircraft in the army and the Air Force. With the dockyard rested the responsibility for ensuring that ships were properly prepared for war and were capable of remaining at sea and fighting under all conditions.

The dockyard was in many ways like a self-contained industrial town. Hemmed in on three sides by the built-up area of the city, and on the fourth by the harbour, the dockyard found it difficult to expand, but its productive area increased by 50 per cent. Five acres of non-productive buildings were swept away to make room for stores and workshops. A hundred and seventy thousand square feet of new buildings sprang up, in every bit of available space. There were few trades one could not find there, from tailors to tin-smiths and optical experts to millwrights. Foundries and sawmills, engineering shops and gunsheds, stores and power plants crammed the whole dock area, which was policed by its own force of ex-service sepoys.

H.M.I. Dockyard was comparable to Chatham, during war, in the work it undertook. Under the direction of a Captain Superintendent of the R.I.N., it worked for six years at top pressure. The then Captain Superintendent was Captain R.R. Caws, R.I.N., who took over from Captain W.R. Shewring, R.I.N. One of the Departmental Chiefs had a cartoon on his desk showing a long queue, waiting at a door marked "Captains only. Refit coupons to be handed in here", while a figure on the bridge of one of the cluster of ships in the harbour had his telescope trained on an ominous banner. "Is your refit really necessary". The answer in the case of most dockyard "Customers" was not in doubt. Clients ranged from a destroyer with 70 feet of stern missing to a ship requiring a new stern. P & O Liners were converted into armed merchant cruisers, and nearly a score of passenger vessels were fitted out as troop transports and hospital ships. Many other ships were taken from their peace-time jobs to become local defence vessels.

As the war progressed, the variety of tasks which had to be performed increased. A dozen ex-Norwegian whalers were converted and fitted out for mine-sweeping. Warships of the United States, Greek and Dutch Navies used the resources of the Bombay dockyard. In addition, the dockyard staff superintended the refitting of all naval vessels in the commercial docks.

The first big action damage repairs were carried out on the Cruiser H.M.S. *Capetown*, after being torpedoed off Massawa in April 1941. The destroyer H.M.S. *Kimberley*, which had her stern blown off by an enemy submarine in the Mediterranean in January

1942, was towed through the Suez Canal to the Bombay dockyard where a completely new stern was built into her and her nine ton main gear-wheel was trued up. The destroyer H.M.S. *Isis*, also damaged in the Mediterranean, reached Bombay under her own steam. After her damage had been patched up, she sailed for Singapore where, with refit 90% complete, she suffered fresh damage after a near miss from a Japanese plane. She was then towed to Surabaya where she received more attention from Japanese planes. In the end, she was towed back to Bombay, to be made fit for sea once more.

The dockyard's engineering department trebled its capacity after 1939. Housed in the century-old building erected as the "steam factory", it then possessed the most modern machinery, supplied since the war, partly from the United Kingdom, and partly as lease-lend material from America. Among the shining new machines, a veteran lathe, 98 years old, was still doing its job.

Most spectacular wartime growth was that of the gun mounting organisation. In 1939 it consisted of one officer and one ordnance artificer. At the end of the war, it employed hundreds of men in workshops which were all wartime constructions. As supplier of guns to the Defensively Equipped Merchant Ships (D.E.M.S.), Bombay ranked as the third port in the Empire : in one year, it fitted over 500 guns of the size of oerlikons and above. For naval vessels, repairs were carried out on gun-mountings, Directors and optical instruments. The department coped with the requirements of almost any ship.

The Naval Stores Officer, who supplied anything from a screw-driver to a motor-boat, had a job almost equal to that of big business. Forty-eight officers, 218 storehouse staff and 260 clerks were kept busy looking after the needs of ships which had 50,000 items to choose from (compared with a mere 10,000 at the start of the war). The Naval Stores Department in Bombay planned and manned stores in several other ports. A year's bill for goods to keep them all satisfied came to something like 400 lakhs of rupees.

Docks

The new "Torpedo" Dock which would take Bangors, Bathursts, Bassetts and up to "S" class submarines, eased the docking position in 1944. There were plans to install the electrical pumping machinery. Alterations were carried out to the floor of Bombay dock, so that the whole length of the dock was then on one level instead of three, enabling 2 sloops to be docked together instead of one, as

formerly. Electrical high-duty dry dock pumps were installed in Duncan and Bombay Docks.

Cranage

A 15-ton crane was installed on West Wall, another between the two dry docks. A new 30-ton mobile crane was also commissioned. The new cranage system made for greater efficiency.

Compressed Air System

Air compressors for a ring main system throughout the whole yard to supply high pressure air to workshops and ships, were installed.

Signal Station

The ground floor or the signal station on the breakwater was demolished in order to permit wheeled traffic, *i.e.* small mobile cranes, compressors, generators, and trucks to pass on to the breakwater and, in effect, turn the breakwater into a series of refitting berths. Formerly, only very minor repairs were carried out at the breakwater.

Machine etc. Shops

The following shops equipped on a modern scale were created or adapted from previously existing shops, resulting in a greatly expanded output of work viz. platers, blacksmith, tinsmith, jointers, painters, welding, boiler, millwright, engine-fitters and foundry.

Torpedo Motor Workshop

It was found necessary to take over and expand a commercial garage and workshop, five miles from the dockyard, for the purpose of overhauling and maintaining the large fleet of Royal Indian Navy motor vehicles.

Labour Welfare

About the middle of 1943 comparisons were made between the dockyard and other large industrial establishments throughout India, in respect of wages, conditions of service and welfare arrangements. It was found that while the dockyard compared quite favourably in regard to wage increments, hours of work, leave, provident fund, bonus, medical treatment for employees etc., it compared badly in welfare arrangements, as, with the exception of Dockyard Canteen and grain shop, there were no welfare arrangements, and in addition workers' housing conditions were appalling. It was, therefore, proposed to the Government that a housing scheme, some 14 miles

outside Bombay, incorporating all the usual amenities such as hospital for workers' families, schools, hostel, shopping centre and recreation facilities, should be sanctioned; but owing to the shortage of building materials and the high rough estimate, Government was unable to accord its approval to it. The scheme was then revived in a modified form, after being shorn of all amenities and the housing cut down to the barest minimum. Sanction in principle was then given. Recognising that while out of keeping with modern development, the plan would still provide better housing than had hitherto existed in the slums of Bombay, it was decided to proceed with the modified scheme.

All these took a great deal of time, about 15 months, but in the meantime efforts were made to deal piecemeal with the welfare problem. A sum of Rs. 100,000 was placed at the disposal of the Flag Officer Commanding, Royal Indian Navy, by the Governor of Bombay for providing (a) library (b) educational classes (c) workers' family dispensary (d) canteens (e) cinematograph apparatus and (f) recreational facilities embracing hockey, cricket, football and swimming to the dockyard workers. With the exception of (b) all these became flourishing activities and very acceptable to the workers.

Workers Family Dispensary

This was housed in a building in Hornby Road, Bombay, near Crawford Market, and was equipped on a modern scale. It was in charge of a well-qualified lady doctor assisted by a staff of six nurses who carried out a routine of house visiting to give ante-natal treatment, medical advice, and dealt with child welfare problems, as well as attending to out-patients and confinement cases at the dispensary itself. There were a large number of calls for advice and treatment from the dockyard workers. It might be added that the dispensary was quite a useful influence in checking absenteeism among the dockyard workers, who frequently used to leave work to escort ailing members of their families to their villages for treatment by local hakims.

At the suggestion of the Dockyard Workers' Union, and with the approval of the Government of India, the Workers' Families Dispensary was renamed in 1945 the "Godfrey Clinic". This institution fully maintained its popularity with the workers. It would appear that a strong case existed for its retention as a permanent feature of the welfare organisation,

The Workmen's Institute

This provided indoor games, library, reading room and canteen. This was named the "Shewring Institute". This institution had a large membership, was financed by members' subscriptions and welfare funds.

Supervisory Staff

The withdrawal of technical supervisory staff attached to the dockyard on loan from the Admiralty during the later years of the war, had serious repercussions on output and efficiency. Twenty-five Indian technicians from the various departments were selected early in the year to be sent to the United Kingdom for training in naval dockyards, in order to replace the Admiralty staff withdrawn or time-expired. Negotiations for sending those men to England for training were pursued in 1946.

Sail Loft

Least war-like, but not least necessary in a corner of the yard, was the section where 300 tailors at their sewing machines were busy during the war period turning out uniforms for the R.I.N. Thousands of uniforms a year amounting to 75 per cent of the navy's needs, were made there.

Thus in six years of concentrated efforts the historic naval dockyard in Bombay had made a distinguished contribution to victory worthily maintaining its 200-year old tradition.

NAVAL RESCUERS' GALLANT WORK IN BOMBAY FIRE

The British S. S. *Fort Stikine*, 7,142 ton loaded with ammunition in Victoria Dock, Bombay caught fire on 14 April 1944 and there were two heavy explosions at 1610 and 1645. Fires spread to Prince's Dock, raged all night, and 18 merchant vessels and three H.M. Indian ships became involved, the majority of which were totally lost. The three war vessels destroyed were the *Jalpadma* Combined Operation (M.T.) ship, which was lifted 20 feet on to the quayside; the *Braganza*, Base ship and the *El Hind*, L.S.I. (L). Besides the destruction of the two docks, a large area of the city was burnt out. Casualties were officially reported as 336 killed and 1,040 injured. Half of the grain stocks held in Bombay were estimated to have been lost.

From Bombay's naval establishments officers and men of the Royal Indian Navy went into action with pumps and salvage equipment against what proved to be the worst fire in the city's history.

Thousands of servicemen were engaged. The fire became, in fact, a large-scale combined operation. Officers and men of the Royal Navy and the Royal Indian Navy rose to the occasion, and a naval detachment was the first to organise a rescue service. A senior naval officer, who had had experience of previous explosions, ordered every available officer and man to the alarm posts when the first explosion rocked the city. When the inevitable call to move to the docks for rescue work arrived a few minutes later, his detachments had already made their preparation and reached the explosion area before any other service. Through the pall of smoke the sailors got to work, emptying godowns of inflammable goods in case the fire should spread to them. R.I.N. mobile fire units also saved many godowns later, and when the flames died down and fire-fighting operations gave place to salvage tasks, they were among the first to get damaged installations working again. Here are a few of the many deeds of gallantry performed by naval personnel :—

A petty officer drove a truck full of ammunition to safety. The truck had no tyre and no windscreen—they had been blown away by the explosion—but he succeeded in steering it out of the docks. Four sailors saved many civilians by shepherding them out of the danger area along a road to which fire was spreading. A Commander of the R.I.N. organised a volunteer party of all three Services and completely emptied a godown packed with drums of phosphorus. One naval officer and his party man-handled their pump down a narrow flight of quay steps to reach the water and throughout the night maintained the pressure to other pumps on the dockside. Another party of ratings worked for several hours under a tottering wall to prevent the flames from reaching a cotton store.

The work at Bombay showed complete co-ordination between the Navy, Army and Air Force. At short notice, the fighting services were called on to perform emergency tasks under the most dangerous conditions. They worked with energy and with such excellent co-operation that the effects of the fire were reduced to a minimum. They displayed gallantry and devotion of a high order and their work was greatly appreciated.

CHAPTER XI

Operational Needs and Requirements

SEA TRANSPORT SERVICE

Sea Transport is known as the Fourth Arm, for the part it plays in the prosecution of war can hardly be exaggerated. Its duties mainly are the transport by sea of the naval, army and air forces with all their equipment and accessories. Without such a service, war, especially of world-wide magnitude, cannot be waged at all. Thus, during the Nuremberg War Criminals' Trials, General Jodd, one-time Chief of German Army Operations, said that victory, almost within Germany's grasp, finally eluded her because she had not the ships and organisation to launch an invasion successfully. In this respect, Britain was prepared to some extent, but, of course, expansion on a world-wide scale was necessary for her.

India's Role

India from the beginning was in a position to handle sea transport work. The Royal Indian Marine, predecessors of the Royal Indian Navy, had always been 50% a trooping service, and as a matter of fact, approximately 70% of the sea transport service in India was drawn from Indian resources. The Royal Indian Navy, Royal Indian Naval Reserve, Royal Indian Naval Volunteer Reserve, Women's Royal Naval Service (WRNS) and Women's Royal Indian Naval Service (WRINS) also entered largely into the picture with their signals and secretariat work. The dockyard at Bombay always carried out the technical side of the work, and, during World War II, both before and after the calamity which occurred there in April 1944, it was doing all that was asked for in half the time.

Personnel

At the helm of the Sea Transport Service (India) was the Flag Officer Commanding, Royal Indian Navy, who was designated the Principal Sea Transport Officer. Assisting him in his task were a Deputy P.S.T.O.(I) and an Assistant P.S.T.O.(I). In addition, the Director of Sea Transport, London, appointed a Deputy Director of Sea Transport for the operational period. The headquarters were in Delhi working side by side with the Naval Headquarters, General Headquarters, the Air Headquarters, with Divi-

sional Sea Transport Officers-in-Charge at Karachi, Cochin, Madras and Vizagapatam. In Bombay there was also a Senior Inspecting Officer (India) with a staff which was responsible for the special fitting of ships for all purposes; namely, carriage of troops of all nationalities, motor transport, petrol and conversion from peacetime to wartime requirements.

Headquarters

The work at the Headquarters was allocated between a number of departments. (a) The Operations and Planning Department was of the highest importance as it co-ordinated the work of the Chiefs of Staff of the Navy, Army and Air Force for all operations involving offensive action against the enemy. The department also dealt with the allocation of ships in conjunction with the Director of Sea Transport, London, to separate sections of Sea Transport Headquarters. (b) The Passage Department was responsible for the movement of all personnel including hospital cases of the three services as well as of civilian passengers ex-India to all war theatres and the United Kingdom. (c) The Freight Department provided tonnage for the transportation of military cargo, such as motor transport, tanks, artillery, aeroplanes, petrol, oil, food, engineering stores, naval equipment etc. At one time as many as 130 merchantmen were plying between India, Burma, Malaya and further east on this task. Scindia Steamship Navigation Company provided *Jalayamuna* and *Jalakrishna* for this purpose. (d) The Stores Department handled all sea transport stores which comprised such items as special loading and discharging gear, bedding for troop transports and fire-fighting apparatus. Its job was to get the goods delivered at the right spot at the right time. (e) The Accounts Department dealt with the financial side of transactions between the Indian Government and His Majesty's Government as well as with commercial interests. (f) The S.I.O. Department (Senior Inspecting Officer) carried out in Bombay, Karachi and Calcutta the work of specially fitting and adapting ships to transport efficiently their troops and war cargoes—a heavy responsibility.

Work at Docks

Ships had to be berthed, watered, bunkered, stored, loaded, discharged, fitted and turned-round in the shortest possible time owing to acute shortage of berths and the needs of war. Due to shortage of staff, sea transport officers had to work long hours under high pressure seven days a week. Vast quantities of food, inland transport, and building materials had to be shipped to the areas which had been ravaged and denuded of the necessities of life.

Operation Zipper/Tiderace

With the intention of working down the Malay Peninsula towards Singapore, Operation Zipper/Tiderace was planned in Delhi, at the Supreme Headquarters in May 1945. The objective was to carry out a series of assaults on Penang, Port Swettenham and Port Dickson on the west coast of Malaya. The outline plan was that the initial assault wave would be sent in at Penang and be carried by ships flying the white ensign, and thereafter be backed up by the sea transport organisation, bringing in second-line troops, stores, equipment etc.

At three-day intervals, subsequent to the assault on Penang, the same procedure was to be adopted for the occupation of Port Swettenham and Port Dickson, respectively. During the whole period of Tiderace operation the Sea Transport Officer provided shipping for a lift of 79,000 troops, both Indian and British, 7,400 motor vehicles, 65,000 tons of stores and 25,000 tons of petrol, together with large numbers of craft, N. L. Pontoons, etc., which required heavy lift ships.

Sea transport headquarters had, therefore, first to find the required ships within the time allowed and fit and prepare them in an efficient manner for the assault. As India was not able to handle all the work entailed, the Principal Sea Transport Officer, Middle East, undertook the fitting out of approximately a third of the motor transport ships. The bulk of the work thus fell upon Bombay whilst Karachi assisted to a small extent. The magnitude of the task did not allow one moment to be lost and it was of boundless credit to the Indian sea transport organisation that the preparations were completed in time, though the staff was inadequate and few in it had had previous experience of the work involved.

The mounting of this operation was distributed between the ports of Bombay, Cochin, Madras, Rangoon, and Calcutta, though Bombay was given the larger proportion of the work. Midway through the loading programme, the Japanese commenced their feelers for peace terms and that naturally altered the aspect of the contemplated operation. In fact, it became more the movement of an army of occupation than that of invasion. Nevertheless, the plan in practically its original aspect was to continue within the same "D" Day of 9 September, though certain ships were withdrawn and others added to conduct Operation Tiderace which was intended to be a movement considerably in advance of Zipper and mounted from Rangoon. Due, however, to the protracted negotiations with the Japanese, the departure of the Tiderace Force had to be post-

poned, even when sea transport was able to prepare and position the ships according to plan.

Surrender of Japan

Additional problems, however, arose as a result of the Japanese capitulation, such as the preparation of hospital and troop ships for the evacuation of released Allied prisoners of war and civil internees. The altered circumstances left little time to embark the additional bedding, clothing, food, medical stores, comforts etc., but due to the excellent co-operation of the services concerned, practically all those ships which had not already sailed were sufficiently equipped to cater for essential needs. When peace was signed, sea transport handed back to ship-owners and agents as much of the tonnage as was compatible with outstanding commitments.

The Sea Transport Service in India performed a good job of work. It was part of the vast organisation which, based on London, provided lines of communication from the heart of the British Commonwealth to all theatres of war. It was responsible not only for shipping operations but also for loading and discharging at ports, arrangements for freight in commercially-operated ships, and the utilisation of country craft. The work expanded enormously when the theatre of war moved to the Far East.

COASTAL FORCES

Administration

The origin of Coastal Forces in the Eastern Theatre dated back to March 1942, when the first Fairmile "B" type motor launch built in India was commissioned in Calcutta. Early in 1942, the appointment was made of a Captain Coastal Forces, Eastern Theatre (C.C.F.E.T.). He set up his administrative headquarters at H.M.I.S. *Cheetah* in Bombay. Captain Coastal Forces, Eastern Theatre, was responsible for (a) all coastal craft operating in the Eastern Theatre; (b) operational training of the Coastal Forces; (c) the administration of Coastal Force craft and bases in the Eastern Theatre; (d) the drafting of R.I.N. coastal Force personnel; and (e) the drafting of Royal Navy personnel for Coastal Forces whenever necessary.

In 1943, the Captain Coastal Forces, Eastern Theatre and his staff moved from H.M.I.S. *Cheetah* to Vizagapatam, in order to be in more immediate contact with the Royal Indian Navy Motor Launch Flotillas operating off the Arakan Coast. In January 1945, the Captain Coastal Forces, Eastern Theatre and his staff moved to

Colombo in order to co-operate more closely with the staff of the Commander-in-Chief, East Indies Station.

Bases

With the rapid development of Coastal Forces in the Eastern Theatre, it was found necessary to build specialised Coastal Force bases at Karachi, Bombay, Cochin, Mandapam, Madras and Vizagapatam. The work of these bases was started in 1942, and the foundations for Coastal Forces slipways and workshops were laid down. H.M.I.S. *Cheetah* at Trombay (in the upper reaches of Bombay harbour) was the biggest of these bases, and was originally designed as the administrative headquarters of Captain Coastal Forces, Eastern Theatre, and as a major reception and fitting-out base for Coastal Force flotillas arriving in India from South Africa and the United Kingdom. It was also to be the base for operational Coastal Forces Flotillas working off Bombay. For administrative reasons, the base was divided into two sections, H.M.I.S. *Cheetah* I and H.M.I.S. *Cheetah* II. The first one dealt with the administrative side of the base, consisting of the slipways and the barracks, and the second concentrated entirely on the engineering overhaul workshops and torpedo workshops at Mankard. The engineering workshops, designed for the overhaul of Packard and Hall-Scott engines, were completed in March 1944, but had gradually come into operation during the preceding months, as equipment and buildings became available.

Changes in Administration

On 15 September 1944, the administration of H.M.I.S. *Cheetah* was handed over to the Royal Navy, as the work carried out in the establishment was mainly on behalf of the Royal Navy and it was not possible for the Royal Indian Navy to meet the increasing demands for highly trained artisan ratings. On the same date the administration of the Coastal Forces base at Mandapam H.M.I.S. *Hilsa* was also handed over to the Royal Navy. All Royal Indian Navy personnel were not withdrawn from H.M.I.S. *Hilsa*. After consultation with the Commander-in-Chief, East Indies Station, it was decided to leave certain R.I.N. Officers and men in H.M.I.S. *Cheetah*. The Coastal Force at Karachi, Cochin, Madras and Vizagapatam no longer came under the direct administrative authority of Captain Coastal Forces, Eastern Theatre, but was placed under Naval Officers-in-Charge of each port.

Formation of Fairmile "B" type Motor Launch Flotillas

The 55th and 56th Royal Indian Navy Motor Launch Flotillas were built and commissioned in India. By January 1943, the 55th

Royal Indian Navy Motor Launch Flotilla was formed. After working up in Bombay, it was sent to the Arakan Coast to give flank support to the 14th Indian Division, which was then fighting on the Mayu Peninsula. Diversionary raids were carried out on Japanese strongpoints situated down the Burma coast, and an effective blockade of all enemy coastal traffic was maintained. Owing to the monsoon conditions prevailing on this coast from April to September, the 55th Flotilla was withdrawn to bases in India at the end of March 1943.

By September 1943, the 56th Royal Indian Navy Motor Launch Flotilla was formed. During the winter season 1943/1944 both flotillas (55th and 56th) were operated by the Captain Coastal Forces, Eastern Theatre on the Burma Coast. The Coastal Forces operational requirements on the Arakan Coast were then dealt with more thoroughly than they had been the year before. An Advanced Operational base was set up in the Naaf river and a Coastal Force repair and depot ship, H.M.I.S. *Barracuda* was stationed at Chittagong.

The operational work of 55th and 56th Flotillas was carried out in close co-operation with the army and a senior officer, Arakan Coastal Forces, was appointed from the staff of Captain Coastal Forces, Eastern Theatre to correlate the work of both the Flotillas.

In December 1944 Royal Indian Navy's most Advanced Base was set up on the Naaf river where India meets Burma. "This Base" wrote its Commanding Officer "had kept pace with the Naval pursuit of the Japs". As landing followed landing it moved south and east well down the Burma Coast in the course of three months.

It worked at top pressure to keep the "little ships with a big punch" fighting fit. At one time only three miles separated it from the Japanese forward positions. "But the wild animals were a bigger menace than the Japs", said the Commanding Officer, recalling the night when an uninvited elephant uprooted the bathroom of the senior officer, Arakan Coastal Forces.

Setting up a Naval Repair Base in the jungle was not easy. First the site had to be cleared, then workshops and living quarters prepared and jetties built, perhaps, under most difficult conditions on a soft, muddy shore. Many jobs which would normally fall to the army were carried out by R.I.N. ratings, sometimes working day and night to get the work completed. With its sea and land transport, the base had to be ready to strike camp and move forward at short notice. It "set up shop" on Ramree Island within a week of the first assault.

The season was very successful. With both flotillas operating at the same time, the Japanese coastal defences were kept in a constant state of tension. An important side of Coastal Force work during that season was the almost continuous raids carried out down the coast. These undoubtedly played an important part in the military successes in the Arakan.

During the winter season of 1944-45, the 55th and 56th M.L. Flotillas were strengthened by the addition of the 49th M.L. Flotilla. The 49th Flotilla which was manned by South African Naval Forces personnel, was handed over to the R.I.N. for manning and maintenance. The regular raids carried out by those three Flotillas on the Burma Coast during the last four months of 1944 were a vital factor in the successful landings which were carried out on Akyab, Myebon Peninsula, Ramree Island and Cheduba Island in 1945.

The Royal Indian Navy operated a total of 26 Fairmile "B" type Motor Launches. The 49th and 55th were both eight-boat Flotillas when M.L. 872, then under construction in Karachi, was completed. M.L. 420 was attached to H.M.I.S. *Valsura* for Torpedo training and M.L. 421 was used as an experimental and training boat.

Harbour Defence Motor Launches

Harbour Defence Motor Launches were primarily designed for Harbour Defence work but owing to the urgent need for Coastal Force craft for the Combined Operations on the Burma Coast, all R.I.N. H.D.M.Ls with the exception of six boats of the 120th H.D.M.L. Flotilla based on Bombay, were placed under the Command of Senior Officer, Arakan Coastal Forces. H.D.M.Ls played an important role in the Arakan campaign and acquitted themselves well. In October 1944, two H.D.M.Ls carried out a remarkable feat of air-sea rescue, when they picked up the entire crew of an American B 29 Superfortress, which crashed in the Irrawaddi delta while returning from a raid on the Japanese mainland.

In October 1944, an unfortunate incident occurred when H.D.M.Ls 1118 and 1119 were attacked by friendly aircraft in the Naaf river. 1119 was sunk and 1118 seriously damaged. Two officers and seven ratings were killed.

The R.I.N. operated 29 H.D.M.Ls in 1944. On completion of the 1945 programme the strength was brought up to 26. The allocation of flotillas is given below:—

120th	Flotilla	8	H.D.M.Ls
121st	„	4	„

122nd	Flotilla	3	H.D.M.Ls	(1119 was lost on active service in October 1944)
130th	,,	4	H.D.M.Ls	
136th	,,	4	,,	
137th	,,	4	,,	

Motor Torpedo Boats (M.T.Bs)

In June 1943 three flotillas of Vosper 72 ft. Motor Torpedo Boats were commissioned in Bombay and Calcutta. Later 22 boats of these flotillas formed into the 16th and 17th M.T.B. Flotillas based at Madras and Vizagapatam. Both flotillas were manned entirely by Royal Navy ratings with R.N. and R.I.N. officers. Owing to their limited operational range and absence of targets for their torpedoes, it was decided by the Admiralty that M.T.Bs were of no practical value in the South-East Asia Command and therefore in July 1944 both flotillas were paid off and placed in care and maintenance.

When the new construction programme was reviewed in September 1945, it was decided that all new construction should cease. Four Coastal Force Motor Launches were employed on training duties—M.L. 420 on Torpedo Training, H.D.M.L. 1084 on Anti-Submarine Training and H.D.M.Ls 1261 and 1262 on Reader Training. H.M.I.S. *Barracuda*, the Coastal Force Depot ship then still in service, was shortly to be returned to the owners. The two Coastal Force Auxiliary Tankers *Lady Myrtle* and *Sabrai* were in the process of paying off.

LANDING CRAFT WING

General

There were well over 50 types of landing craft, large and small, in the Royal Navy and well-nigh the same number of landing craft in the Royal Indian Navy during the war period. All were designed primarily for putting troops and their equipment, tanks, lorries and guns ashore on hostile beaches, in face of enemy opposition. Chief among the minor Landing Craft were L.C.M., the L.C.A., and the L.C.S. There were other types like L.C.T., L.C.P.(L)—Landing Craft Personnel (Large) etc.

Formation

The Royal Indian Navy Landing Craft Wing was first formed in November 1942. It was manned largely by officers and men transferred from the army. The formation of this wing was an excellent illustration of the manpower situation in 1943 when the needs of all three Services for men of intelligence and some educa-

tion could no longer be filled by direct recruitment. First, it was agreed that the navy should select volunteers from the army, but this method proved too slow. Eventually, it was decided to break down certain battalions of the Indian army and transfer them to the R.I.N. These together with volunteers called from throughout the Indian army made up the requisite number.

A large proportion of officers was made up of R.N.V.R. and R.I.N.V.R. officers. The men were 'hostilities only' ratings. The landing craft wing was the youngest branch of the naval service. But the work they and their craft did was essential for the victory that followed.

The R.I.N. landing craft wing was formed into the following flotillas :—

"I" L.C.T. Squadron :—

60th L.C.T. }	1173,	1216,	1218,	1225,	1292,	1294,	1295,
Flotilla }	1310,	1315,	1358,	1360,	1380.		
61st L.C.T. }	525,	573,	585,	745,	1100,	1101,	1103,
Flotilla }	1141,	1142,	1145,	1181,	1243,	1316,	1361.
62nd L.C.T. }	743,	744,	817,	908,	917,	1211,	1244,
Flotilla }	1291,	1298,	1336,	1363.			
Attached Craft—	386,	487,	531,	L.C.T.(E)	306.		

L.C.C.A. Flotillas :—

A L.C.A. Flotilla

B „ „

F „ „

3 „ „ (borne on *Llanstephen Castle*).

L.C.C.W. Formations :—

Naval Bombardment Group

Beach Signal Station

Pontoon party

Beach Commandos "A", "B" & "C"¹.

1. Beach Commandos

"A" & "B" were operational, "C" was Reserve and replacement. Each Commando consisted of 12 Officers, roughly 140 N.C.Os and other Ranks. Each Commando was divided into 3 sections of 3 Officers (One Beach Master and 2 Assistant Beach Masters) and 40 men each. The Commandos were entirely self-sufficient for equipment, transport and specialised craft like Rubber Dhingies, Kayaks etc. The transport included normal vehicles like 3 Tonners, 15 Cwts. Jeeps etc. and Dukws (amphibious vehicles which could go on land and water). Each Commando was attached to an Army Beach Group. A Beach Group served a Division.

Landing Craft Training Organisation

During the war, the Royal Indian Navy began training landing craft crews. In time, the landing craft wing developed into an organisation of considerable size, its training centre being then the largest naval establishment in India. It was called H.M.I.S. *Hamla*, located at Mandapam on the extreme southern promontory of India. In June 1943, the first batches of trainees (the *Hamla* product) formed into flotillas and moved to Bombay for their advanced training in the Royal Navy establishment H.M.S. *Salsette*. At the end of 1943, the flotillas in *Salsette* (a group from land wing) were joined by their maintenance parties, trained in the landing craft base at Sassoon Dock, Bombay. This base was entirely manned and run by the Royal Indian Navy. In 1944 it was extended and improved. It was later taken over by the Royal Navy.

Early in 1944, the Royal Indian Navy Flotillas commenced combined training with the Army at the two combined training centres at Madh (Maud) and Cocanada. At this time the Head-quarter Establishment and Depot H.M.I.S. *Hamla* moved to the Bombay area. On the move to Bombay in the spring of 1944, H.M.I.S. *Hamla*, the parent establishment, was located in buildings vacated by H.M.I.S. *Khanjar*, the old new-entry training establishment. These buildings, mainly old commandeered sanatoria, did not prove satisfactory. H.M.I.S. *Hamla* was then moved to new quarters in Wavell Lines, Malir Camp, near Karachi.

A point to note is that the training of the Landing Craft and the Combined Operations during the war period, was more or less the same. No. 1 Combined Training Centre was situated on Madh Island, some 3 miles south of Marve. The naval camp to accommodate the crews of the Landing Craft engaged in naval training was established at Marve. This establishment, later commissioned as H.M.I.S. *Hamlawar*, originally consisted of three landing craft flotillas housed in tents and old huts, relics of the days when Marve was a sea-side resort. *Hamlawar* was eventually built up to an establishment of 120 officers and 1,200 men, housed in good buildings on a fine site. The camp was handed over to the Royal Marines in November 1944 when the Royal Indian Navy flotillas operating there were required for operations in the Arakan. It was decided that the R.I.N. would provide crews for training to the No. 2 Combined Training Centre in so far as future operational requirements were concerned.

No. 2 Combined Training Centre had meanwhile been started at Cocanada on the east coast of India, some 80 miles south of Viza-

gapatam. A naval camp was built at the mouth of the Cocanada canal to accommodate the crews of, and provide maintenance facilities for, the craft engaged in army training. This establishment commissioned as H.M.I.S. *Jehangir*, was originally intended to be manned by Royal Navy crews, but as these were not available, this commitment was also undertaken by the Royal Indian Navy in April 1944, with some three flotillas then uncommitted. During the first half of 1945, accommodation in H.M.I.S. *Jehangir* was increased in order that the crews from major landing craft under training might live ashore.

Signalmen for the Landing Craft Wing, the Beach Signal sections and Naval Bombardment troops were trained in H.M.I.S. *Talwar* and H.M.S. *Braganza III*. During 1944 four R.I.N. ratings who were attached to *Braganza III* qualified as paratroopers.

Besides these, training was also carried out in three other places in 1945. Squadron and Flotilla Executive and Engineer Officers and Squadron Staff Officers underwent courses in the United Kingdom at H.M.S. *Dinosaur*. The engine room personnel and the maintenance parties for the squadron received technical instruction in Port Said. The remaining personnel underwent their preliminary training in the Bitter Lakes, Suez Canal, under the direction of H.M.S. *Saunders* at Kabret. Before leaving India, officers underwent an intensive Navigation Course at H.M.I.S. *Feroze* in Bombay and at H.M.I.S. *Himalaya* in Karachi.

In the Operational Theatre

In the autumn of 1944 almost all the operational flotillas and units of the Landing Craft Wing moved to the Arakan, where they were employed inferrying stores and working up with "Force 64" for the assault on Akyab. The composition of the Landing Craft Wing in the Arakan was: 5 squadrons comprising 16 flotillas of minor Landing Craft, 6 flotillas L.C.A., 8 flotillas L.C.M., one Beach Commando, two Landing Craft Recovery Units, one Naval Bombardment Troop, one Naval Beach Signal Section and advanced administrative and maintenance parties. During the landing at Akyab and subsequent operations at Myebon and Ramree, the flotillas and units of the Royal Indian Navy Landing Craft acquitted themselves with credit. In the words of the Force Commander "they have more than done their stuff."

In May 1945, all Landing Craft Wing personnel were withdrawn from the Arakan and preparations were in progress to form a squadron of major Landing Craft to be manned by the Royal Indian

Navy. To man these craft five L.C.M. flotillas, one L.C.P. flotilla and a Beach Commando were spared for intensive training which started by June in H.M.I.S. *Jehangir*, H.M.S. *Dinosaur*, and at H.M.S. *Saunders*.

Administration

In general, the crews of the Landing Craft were composed of ex-army personnel and the technical and administrative personnel were ex-general service. The distribution in mid-February 1944 was approximately as follows :—

	<i>Officers</i>	<i>Ratings</i>
Operational (Arakan)	246	2,320
Army training (H.M.I.S. <i>Jehangir</i>)	32	430
Naval training and Depot Administration (H.M.I.S. <i>Hamla</i>)	61	1,000
Landing Craft Base, Sassoon Docks	15	230
Inter-Services Exhibition Field Gun Crews	—	50

The Landing Craft Wing as a whole was administered after April 1944 by the Senior Officer, Landing Craft Wing (SOLWING) with Headquarters in H.M.I.S. *Hamla* at Varsova near Bombay. When the greater part of the personnel moved to the Arakan, the Senior Officer, Landing Craft Wing established his advanced headquarters in Akyab while his rear headquarters remained in H.M.I.S. *Hamla*.

In April 1945, the title of Senior Officer, Landing Craft (SOLWING) lapsed and the R.I.N. landing Craft Wing became merged into general service. A staff officer was appointed in Bombay with the title of Maintenance Commander R.I.N. Landing Craft Personnel. The responsibility for the administration and training of establishments, flotillas and units was delegated to the Senior Royal Indian Naval Officer or Naval Officer-in-charge in whose area these personnel happened to be. The Maintenance Commander Landing Craft Personnel had a staff in Bombay which constituted a branch of Naval Headquarters (India).

NAVAL COMMUNICATIONS

Wireless Telegraphy and Harbour Signal Stations in India and elsewhere

With the considerable technical improvement and, in many cases, with the complete rebuilding and re-organisation of the Indian

Naval Wireless Stations from 1942 onwards, the Indian ports and Delhi formed, within two years, an efficient integral part of the naval world-wide wireless organisation. Bombay Fort continued to play its part as an important link with Whitehall, South Africa and the South-West Pacific. Calcutta, in particular, with its up-to-date remote reception and transmission and acres of Rhombic aerial arrays, developed into a very fine radio station necessary for the operational role it played during the war. From three lines manned in 1943, fifteen lines were in operation the next year.

The naval wireless stations at Aden, Bahrein in Khor Kuwai were manned by the Royal Indian Navy personnel.

Visual signalling arrangements were reviewed at all ports in India, resulting in new harbour signal stations being built in Calcutta, Bombay, Vizagapatam, Chittagong, Cochin and Cocanada.

Calcutta wireless station stood the strain of a rush of traffic during the Arakan operations culminating in the capture of Rangoon. Shortly after Rangoon was re-taken a direct wireless service, previously planned, was opened successfully between Calcutta and Rangoon. High powered transmitters were installed to increase the range of the operational broadcast.

Bombay Fort wireless station which kept up its high tradition of being the finest station in the Far East took a very active part in the post-war merchant ship communications.

W/T Maintenance at Ports

The Base wireless workshops in Calcutta and Bombay were fitted with up-to-date lathes and coil winding machines, greatly facilitating the repair and overhaul of wireless equipment of ships. Special test equipment provided included circuit analysers, oscillators and valve test boards. Base workshops at Chittagong, Vizagapatam, Madras, Cochin and Karachi were also provided with this equipment. Special test equipment to service the latest types of transmitters and receivers was provided for Bombay and Calcutta.

Traffic

In 1942 a great increase took place in the number of signals handled both for R.N. and R.I.N. authorities. To cope with this communication, offices were rebuilt at almost every port and up-to-date systems were incorporated. Late in 1944, all east coast ports, and Delhi and Bombay were connected to the defence teleprinters net work, each port having upto six machines working.

Staff

The formation of the WRINS and a Coder Branch went a long way towards making up deficiencies of staffs. As a temporary measure, R.I.N.V.R. executive officers were trained in cypher work until the Coders and the WRINS were up to strength. A number of experienced WRNS officers were loaned by the Admiralty for cypher duties in H.M.I.S. *Talwar* and at various central communication offices in India, and rendered valuable service.

Naval Headquarters

On account of the navy's very large and increasing communicational commitments, a Signals Directorate was formed in Naval Headquarters in February 1944. This Directorate was represented on Inter-Services Committees and was in close touch with the Communications Staff of the Commander-in-Chief, East Indies Station.

Operational Communications—Arakan Coast

A great improvement was made in 1944 compared with the previous campaigning seasons. Chittagong wireless was completed in 1943 and 8 lines were manned in 1944. More than 100 communication ratings were employed. A considerable volume of traffic was ably borne by both Chittagong and Calcutta during the Combined Operations in early 1945. With the cessation of hostilities wireless station at Chittagong closed down.

Bay of Bengal

An operational broadcast service to ships in the North Bay was commenced in 1944 to provide a new improved link between shore authorities and convoy escorts in the North Bay area. A shore to shore broadcast was commenced in the middle of 1944 to link ports of the east coast to Delhi and Colombo. This was controlled by Calcutta and was in use for operational traffic only. A common shore to shore calling organisation was introduced for all ports in India with Calcutta and Colombo listening in.

Mail Organisation

During the war period, the Admiralty made great efforts to improve the efficiency of Fleet Mails in the Royal Navy and Royal Indian Navy. British General Post Office personnel were selected as Regional Fleet Mail Officers, Fleet Mail Officers and Writers (postal). Women's Royal Naval Service officers and ratings were

also trained in Fleet Mail duties. In India, one Fleet Mail Office was in operation at the beginning of 1943, in the Central Fleet Mail Distributing Office, Bombay. This organisation was unwieldy and ineffective owing to the large variety of mail that it handled—Top Secret down to private mail—and the inexperience of its staff. Naval mails at other ports were handled by the secretary to the Naval Officer-in-charge and merchant navy mail by the Sea Transport Officer. As the great preponderance of mail handled in those days was that of merchant navy, the bulk of the responsibility for naval mails rested with the Principal Sea Transport Officer (India). A Mail Officer was appointed in Naval Headquarters in July 1943.

Experience proved (a) that something more than close co-operation with the Indian Posts and Telegraphs Department was needed to ensure efficiency of work connected with the Fleet Mails; (b) the standard of education of Royal Indian Navy ratings and Indian civilian clerks was not adequate to ensure speed and accuracy in mail sorting and efficiency in the higher grades of Fleet Mail work like handling of register, serving at the public counter, redirecting undeliverable mail, maintaining records, and statistics etc.; (c) commissioned officers without previous experience of mails were unable to cope with the full duties of a mail officer.

It was therefore decided in 1944 (a) to fall into line with Royal Navy Fleet Mail procedure, placing local responsibility for Fleet Mails on the Naval Officer-in-Charge, and adopting the same despatch and receipt system; (b) to request the Admiralty to loan trained Royal Naval Fleet Mail staff for duties with the Royal Indian Navy, as 90% of the mail passing through naval channels in India belonged to the Royal and the Merchant navies; (c) to build up an improvised Fleet Mail organisation from local resources until trained Royal Navy staff became available, and to prepare the ground for their arrival by obtaining Fleet Mail accommodation, transport, stores, furniture, fittings etc., in all the Indian ports.

In the Royal Indian Navy, only two officers were (in 1944) known to have general post office experience. These officers were brought into Fleet Mails, and certain new entry officers were given one month's training in the Fleet Mail Office, Bombay. The new officers who had completed their training in Bombay were appointed one at each port. W.A.C. (I) Auxiliaries were sanctioned as staffs. Owing to the shortage of the latter, lower grade clerks had to be employed instead, which continued throughout the war period. Fleet Mail offices were opened in Calcutta, Vizagapatam, Chitta-

gong, Delhi, Madras, Cochin, and Karachi during the period January to August 1944.

The delivery of "Safe Hand" mails was speeded up by the commencement, in a manner similar to Fleet Mails, of a daily inter-post despatch by hand of pilot through the Royal Air Force. On 1 August 1944, the irregular courier service, operated from Bombay for the purpose of delivering to Indian ports large quantities of Top Secret and Secret Mail which had arrived from the United Kingdom. It was reorganised into the Naval Officer Counter Service, operating between all Indian ports and Ceylon on a regular weekly schedule, with the R.I.N. commissioned officers as couriers. In June 1944 the Admiralty agreed to send trained Fleet Mail officers for duties with the Royal Indian Navy. These officers were appointed to Delhi and the ports. Consequently, an Empire-wide effort was made to effect (a) a speed-up in mail deliveries; (b) an increase in postal concessions to the forces.

Fleet Mails improved greatly during the war. Though complaints did not diminish, they referred to shorter delays than previously. On the other hand, there was a greater appreciation that Fleet Mail work required skill and experience above that possessed by the amateur. There was also a greater reliance on the "Authorised Channels" for getting mail to its destination in moderate time than on dubious, unofficial means which usually divulged the movements of ships. Though many lessons were learned concerning the handling of naval mails after the outbreak of war, the establishment of an efficient Fleet Mail service required many more trained personnel than were available till then. Certain changes in the organisation as such could not be put into effect due to war conditions. Even so, every endeavour was made to improve the Fleet Mail system in the navy during the war with limited resources.

1945

Until the fall of Akyab, particular attention was paid to mails for the Eastern Operational Theatre, F.M.Os, Bombay, Colombo, Vizagapatam, Calcutta, Chittagong and Akyab being extremely busy. Due to lack of trained mail staff and insufficiency of advance information concerning the movements of ships and naval parties, naval mails were not as efficient as they otherwise would have been. Nevertheless, mainly due to hardwork in Fleet Mail offices, mails came and went with fair regularity, and the chaos that was evident during former operations was much reduced. One coastal forces authority stated that mail arrangements for his flotillas were very efficient.

After the fall of Akyab, mails for operational areas controlled by the Flag Officer Commanding, Royal Indian Navy, diminished, and pressure passed to Vizagapatam, Madras and Cochin. Calcutta, however, being the focal point for United Kingdom--Burma air mails remained very busy. The Fleet Mail officer at Akyab was withdrawn when the Fleet Mail Office there closed down.

H.M.I.S. *BENGAL*'S EPIC BATTLE

One of the ships built by Australia during the war for the R.I.N. was H.M.I.S. *Bengal* (733 Tons), a Bathurst Class Minesweeper. A draft of officers and men (75 in number) left India for Sydney in the middle of 1942, to take her over. The ship was launched by Mrs. Curtin, wife of the Australian Prime Minister, and under the command of Lt. Cdr. W. J. Wilson, R.I.N.R., she started on her maiden voyage to India. In the short time available her ship's company were just settling down and becoming proficient with her equipment. In view of this, their conduct in action that ensued during her maiden voyage must be considered highly commendable.

On 5 November 1942 she sailed from Fremantle as escort to M. V. *Ondina*, a Dutch tanker on passage to Diego Garcia, an island in the Indian Ocean. By 1130 on 11 November she was about 1,000 miles south-west of Java 23°S 93°E. At 1145, she sighted a vessel, about eight miles off, coming straight towards her. The new comer could not be identified but in any case to adopt the safer course, the *Bengal* sounded her action alarm and the ship's company closed up at "Action Stations". The *Bengal* altered course to starboard and instructed the tanker to take station on her starboard beam. At this time another ship appeared over the horizon coming up to the *Bengal's* port bow. Both ships were larger than the *Bengal* whose armament comprised one twelve-pounder gun and a few close-range anti-aircraft guns. By this time it had been established that both the identified ships were Japanese. The *Ondina* was therefore instructed to act independently and to rendezvous at a certain position the following day.

The *Bengal* then increased to full speed and turned to engage the first raider. She hoped in this way to allow the tanker time enough to get away but the Master of the *Ondina* would not leave her to face the two raiders alone. Instead, with his four-inch gun mounted aft, he returned the fire. The action that then followed is best described in the words of the Commanding Officer, Lt. Cmdr. W. J. Wilson, R.I.N.R., :-

"The raider came up very fast and the *Bengal* steamed straight ahead at her. The raider also increased speed and opened fire at about 3,500 yards with her forward guns. We retaliated and hit first. At 3,000 yards we must have hit the raider in the magazine because a great sheet of flame shot up astern almost mast high. We then closed the range and fought the action at about 2,500 yards. The second Japanese raider never came closer than 8,000 yards. Both fired at us continuously. The first ship we engaged carried on firing, until, in a great sheet of flame, she blew up and sank. I estimate she fired over 200 rounds at us. At 1245 our ammunition was running short. We had very few rounds left and our vessel was damaged fore and aft. The ship that we sank was a large edition of the Kuni-kawa Maru class and was of approximately 10,000 tons. The second raider was slightly smaller, her tonnage being 8,000. They were both firing 4 gun broadsides, and these appeared to be from 5.5 inch guns. We drew the enemy's fire and acted as a screen as long as possible to allow the tanker to escape".

The encounter lasted for over two hours but really the first three minutes decided the issue. While shells were bursting all round them, the crew of the *Bengal* kept on firing one salvo after another. The sixth salvo made a direct hit on the first raider for, following a terrific explosion, flames leapt high in the air from her. This greatly enthused the R.I.N. crew who kept on firing steadily. By that time, the second raider had come within range and opened fire. Within a quarter of an hour of action being joined a fire broke out in the *Bengal's* officers' baggage room. She had also been damaged fore and aft, and had only five rounds of high explosives D.A. remaining. The Commanding Officer accordingly decided to break off the engagement and started to make smoke, but not before the first raider had gone down by the stern and sunk.

The *Ondina* had then opened the range to about seven miles, but the second raider began to chase her and fire repeatedly. The tanker's ammunition was soon expended and her Master, William Horseman was killed. She was then abandoned; whereupon the raider torpedoed her twice. The raider also machine-gunned the boat killing the Chief Engineer and some of the Chinese crew. When the raider left the scene, volunteers boarded the vessel and with some difficulty got her under way. She eventually reached Fremantle where she had been given up for lost.

It was a matter of surprise even to the ship's company that the *Bengal* emerged from this action without serious damage. They had never been in action before but when 'Action Stations' were sounded, every one was perfectly calm, firm and disciplined and all

hands were, in fact, anxious to have a shot at the raider. The Captain's example was highly inspiring and the tribute he paid to his men was fully deserved. He said, "No praise is great enough for their magnificent conduct in face of the greatest danger". The Flag Officer Commanding, Royal Indian Navy spoke much in the same strain when in his message he said, "We are all proud of you"².

When the *Bengal* reached Colombo, every ship in harbour gave her an official and spontaneous reception. A band played on the jetty and as the Ships Company descended the gangway of their ship they were greeted with loud cheers. The acme of their joy was however reached when they steamed into Bombay. While still outside the harbour R.I.N. ships who happened to be in the vicinity saluted them. Her 75 officers and men received a public reception and were honoured at a lunch in the Sir Cowasji Jehangir Hall.

Awards

The Captain of the Ship, Lieut. Commander W.J. Wilson was decorated with the D.S.O. Leading Seaman Ismail Mohammed O. No. 4646, one of the 12-pounder gun's crew was awarded the I.D.S.M. for gallantry and devotion to duty during the action. Petty Officer Mohammed Ibrahim, captain of 12-pounder gun, was awarded the I.O.M. 2nd class for setting an excellent example of steadiness and resolution and using his weapon to the very best advantage even after the *Bengal* had been hit by enemy gun fire.

² *The War at Sea* Vol. II By Captain S. W. Roskill.

CHAPTER XII

Operations in the North Atlantic and Mediterranean

North Atlantic

During the course of the war six anti-aircraft sloops and several fleet minesweepers were built in the United Kingdom for the R.I.N. After commissioning, many of these ships joined various escort groups operating in the northern approaches to the British Isles. H.M.I.Ss *Sutlej* and *Jumna*, each armed with six high angle 4" guns, were present during the Clyde "Blitz" of 1941 and assisted the defence of this area by providing anti-aircraft cover. For the next six months these two ships joined the Clyde Escort Force, operating in the Atlantic and later the Irish Sea Escort Force where they acted as the senior ships of the groups. While engaged on these duties, numerous attacks against U-boats were carried out and attacks by hostile aircraft repelled. At the time of action in which the *Bismarck* was involved, the *Sutlej* left Scapa Flow, with all despatch as the senior member of a group, to take over a convoy from the destroyers which were finally engaged in the sinking of the *Bismarck*.

Later H.M.I.Ss *Cauvery*, *Kistna*, *Narbada* and *Godavari*, also anti-aircraft sloops, completed similar periods in the U.K. waters escorting convoys in the Atlantic and dealing with attacks from hostile U-boats, aircraft and glider bombs. These six ships and the minesweepers all eventually proceeded to India carrying out various duties in the North Atlantic, Mediterranean and Cape stations en route. The fleet minesweepers were H.M.I.Ss *Kathiawar*, *Kumaon*, *Baluchistan*, *Karnatic*, *Khyber*, *Konkan*, *Orissa*, *Rajputana* and *Rohilkhand*.

Mediterranean

The following Royal Indian Navy ships built in the United Kingdom served in the Mediterranean.

Sloops:—

- | | | |
|---------------|---|--|
| <i>Sutlej</i> |) | (Built in 1940). Came out to India via the |
| <i>Jumna</i> |) | Cape. But later served in the Mediterranean |
| | | between May and September 1943 escorting |
| | | convoys, and took part in operation "Husky". |

<i>Cauvery</i>	)	(Built in 1942). Came out to India via the
<i>Kistna</i>	)	Mediterranean. Convoy escort duties en route.
<i>Narbada</i>	)	(Built respectively in 1942 and 1943). Came
<i>Godavari</i>	)	out via the Mediterranean. Convoy escort
		duties en route.

Fleet minesweepers

<i>Kathiawar</i>	)	(Built in 1942). Came out via the Cape. But
<i>Kumaon</i>	)	did convoy escort duties and minesweeping in
		Western Mediterranean in February 1943.

Operational Headquarters at Malta:—

As a preliminary to the invasion of Sicily, the Commander-in-chief in the Mediterranean, Admiral Sir Andrew Cunningham, transferred his operational headquarters from Algiers to Malta on 5 July. The main administration of the fleet remained at Algiers.

After months of preparation Operation "Husky" was about to be launched. It was the largest amphibious operation yet undertaken. "D" day was fixed for 10 July 1943. The Commander-in-Chief's signal ordering all ships and authorities to carry out the operation was timed 0950 on 4 July.

Strategic surprise was achieved in a large measure in the routeing of assault convoys. Hostile air reconnaissance was deceived by well-planned feints. On 9 July the majority of ships appeared apparently heading eastward towards Greece.

Plans for the Landings

The two sectors chosen for the landings were separate but adjoining and lay on the south-eastern and southern coasts of Sicily. Together they stretched for about 100 miles from Syracuse to Licata. The attack in the south-east was launched by the Eastern Task Force (British), that on the South by the Western Task Force (American).

The Eastern Task Force was allotted landings as follows:—

- (a) North of Avola, by the 5th and 50th Divisions from the Middle East (beaches Acid North and Acid South) with the object of capturing Syracuse.
- (b) North of Pachino, by the 231st Brigade from the Middle East (Bark East).
- (c) North-east and south-west of Porto Palo, by the 51st Division from Tunisia (Bark South).
- (d) South-west of Pachino, by the 1st Canadian Division from the United Kingdom (Bark West).

The Western Task Force was allotted landings as follows :—

- (a) Scoglitti, by the 45th U.S. Division, from the United States (Cent).
- (b) Gela, by two regimental combat teams and two ranger battalions of the 1st U.S. Division from North Africa (Dime).
- (c) Licata, by three regimental combat teams and one ranger battalion of the 3rd U.S. Division, from North Africa (Joss).

Officers in Command

General Dwight D. Eisenhower, who, eight months earlier, had conducted the landings in North Africa and had since commanded the Allied Forces there, was again entrusted with the Supreme Command. Admiral Sir Andrew Cunningham was the Naval Commander-in-Chief. The Army Commander-in-Chief was General Sir Harold Alexander, and the Air Commander-in-Chief, Air Chief Marshal Sir Arthur Tedder.

The following were the Naval Sector Commanders :—

Acid North and South, Rear-Admiral T. H. Troubridge
(H.M.S. *Buiolo*)

Bark East, Captain Lord Ashbourne, R.N.
(H.M.S. *Keren*)

Bark South, Rear-Admiral R. R. Mc Grigor
(H.M.S. *Largs*)

Bark West, Rear-Admiral Sir Philip Vian
(H.M.S. *Hilary*)

Cent, Rear-Admiral Kirk, U.S.N.
(U.S.S. *Ancon*)

Dime, Rear-Admiral Hall, U.S.N.
(U.S.S. *Samuel Chase*)

Joss, Rear-Admiral Conolly, U.S.N.
(U.S.S. *Biscayne*).

Covering and Supporting Forces

To cover the assaults against interference from the Italian fleet, Force "H" was specially strengthened and was stationed in the Ionian Sea, where it served incidentally to suggest that the expedition might be directed against Greece. It was organised in three divisions, each consisting of battleships, an aircraft carrier (except in the third division) and destroyers. The first division consisted of the battleships *Nelson* (Flagship of Vice-Admiral Sir Algernon Willis) and

Rodney and the aircraft-carrier *Indomitable* (Flagship of Rear-Admiral Moody).

The Invasion

The sea-borne invasion of Sicily began at 0245 on 10 July 1943 after a preliminary descent of parachute and glider-borne troops about four hours earlier. Landings were made at seven places; on the east coast by the British Eighth Army (a) north of Avola by the XIII Corps, (b) at points north of Cape Pachino by the Corps, (c) at points near Porto Palo, near Cape Passero, by the 51st Highland Division, (d) south-west of Pachino by a Canadian Division and further to the west by the United States Seventh Army (e) at Scoglitti, (f) at Gela and (g) at Licata. The invading force was convoyed and covered by 2,755 ships and landing craft of all sorts.

Sutlej & Jumna

The *Sutlej* (Capt. J. E. N. Coope, R.I.N.) and *Jumna* (Cdr. I. B. W. Heanley, R.I.N.), which arrived at Alexandria in May and June 1943, were attached respectively to the First and Second Levant Escort Groups. In June they were employed in escort duties between Alexandria, Tripoli and Malta. In the beginning of July, they were on escort duties with the Convoy MWS 36 from Alexandria to Sicily. On 6 July, S. S. *Shahjehan* of this convoy was torpedoed. They arrived at "Acid North" beaches and provided anti-submarine screen during the landing operations. Describing the part of the *Sutlej* in these operations Captain Coope stated :—

"The *Sutlej* was senior officer of A/S patrol and as such had a roving commission as general 'Whipper in' to the patrol ships and managed to make quick dashes inshore to have a 'decco' at the landings at close quarters. The sight was amazing. Landing Craft of all descriptions pouring their loads ashore with very little congestion on the beaches as the troops and vehicles very rapidly pushed inland to capture their objectives.

"By 1100, five hours after initial assault, Admiral Troubridge was able to signal to the Supreme Naval Commander—Admiral of the Fleet Sir Andrew Cunningham 'Landings at Acid Beaches successfully carried out, bridgehead secured.' Landings on the southern and western coasts of Sicily were also successfully accomplished.

"All these landings, which covered a front of nearly one hundred miles, were supported by Naval Craft of all descriptions Cruisers, Destroyers, Monitors, Sloops, Corvettes, Mine-Sweepers, Gunboats, Motor Torpedo Boats, Motor Gun Boats and in the air by Bombers and Fighters of the R.A.F."

H.M.I.S. "Sutlej" between August and December 1943

Captain H. Watt, R.I.N. took over command of H.M.I.S. *Sutlej* in August 1943 when the ship operated in the eastern area of the Mediterranean from August until 1 December 1943, before she was ordered to rejoin the Eastern Fleet. His first week in the *Sutlej* was spent at Alexandria completing a boiler clean.

The *Sutlej* was once ordered to search a hostile submarine reported to be operating off the Libyan coast. It had not carried out any successful attacks and the information available was scanty. After an unsuccessful search of 36 hours the Corvette and the *Sutlej* returned to harbour.

After this her duty was to convoy ships between Alexandria, Port Said, Haifa, Beirut, Tripoli, Alexandretta, Famagusta and Limassol. The convoys she escorted were numerous but the voyages were of short duration. No convoy was even attacked and over a hundred ships were safely taken from port to port. It was rather surprising that the Axis navy or air force made no serious effort to damage the Allied shipping in this theatre during the period August-December, 1943. The bulk of the shipping involved was tanker tonnage, ships of great value. Ostensibly the collapse of Italy had affected the German submarines in this area and restricted their movements. In September when part of the Italian Fleet was steaming out of Italian waters pursued by the *Luftwaffe* and the battleship *Roma* was sunk by bombs near Corsica, the *Sutlej* was ordered to proceed to Haifa with despatch. Her job was to rush companies of veteran British troops into the Aegean area. The Greek destroyer *Kondoriotis* and the French destroyers *La Moqueuse* and *Domine* were to do the same and form one Force coming under *Sutlej* as Senior Officer. With troops embarked she sailed in company that night.

The troops on board the *Sutlej* were a detachment of the Royal West Kents from a regular battalion. They had been rushed across by lorries from Iraq and had a rough time of it. The soldiers had been on field rations and welcomed ship's food and cigarettes. The ships pushed along through the night at their best speed. Their destination was the Italian island of Kostelorizo off the coast of Turkey on the perimeter of the Aegean Sea not far from Rhodes. Before sailing information was very scanty. The state in the Aegean islands was one of flux. Some islands had surrendered to the Germans, some were fighting against them, and others were watching the developments. All that the *Sutlej* had to do was to go to Kostelorizo, land the force and return for more troops. The plan of

the island and harbour from a Greek survey of 1860 was her guide. The reception she expected was favourable and by the time she arrived, it was hoped that a British representative would have arrived from Alexandria in a fast launch. She was not given any information about port facilities or the existence of mined areas. Before she left, there was a meeting between the Captains of the four ships to co-ordinate the landing procedure. One of the French Captains had some barrels of oil on board and he was terribly anxious as to how he should land them. He tried to get the *Sutlej* to let him take a short cut between some small islands and rocks off their destination so that he might roll out the barrels to drift on shore. Luckily they had taken the longer and more orthodox way and kept to deep water because later they heard that most shallow channels in the island had been mined.

The *Sutlej* had an uneventful voyage and all she saw was a fleet of ten small island vessels on their way to Beirut escorted by two R.N. motor launches. It was evening as the *Sutlej* approached Kostelozorizo with the mountain ranges of Turkey in the background. The whole region looked barren. The ship had orders not to anchor before dark for fear of air attack from Rhodes. At dusk she edged slowly in to a rock cove where the houses and dwellings of the town on the shore came down to the water's edge. She and one of the other ships got right in and anchored close in to the quay and the other two ships lay not far off. As soon as the *Sutlej* had anchored, two British officers came on board. It was good news to be told that the Italian garrison were willing to help the British if help arrived. Being only a few yards from the dock wall, it took only four hours to disembark troops and stores and at midnight the *Sutlej* sailed for Beirut together with the other ships. On the way back the Greek ship *Kondoriotis* depth-charged a suspected submarine.

Later in October, *Sutlej* again set out for Kostelozorizo, this time escorting the Italian ship *Eolo* carrying British reinforcements. Within five hours of her arrival the order to return to Beirut was signalled to her by wireless. The Allied stronghold of Leros was attacked by superior Axis forces and consequently the *Sutlej* had to leave the Aegean waters.

After visiting Famagusta in Cyprus and Haifa, Beirut and Tripoli, the *Sutlej* sailed in December for Indian waters. Her sojourn in the Mediterranean had not been very long. After passing through the Suez Canal she made for Massawa where she spent a few days in dry dock. Her next port of call was Aden. Then she reached Bombay where the ship underwent a refit during which time many ratings were granted leave.

CHAPTER XIII

Burma Operations (1942-1945)

OPERATIONS BY COASTAL FORCES—M. L. FLOTILLAS

Spring 1943

The 55th M.L. Flotilla arrived in Chittagong in December 1942 ready to support the land operations along the Arakan. Operational duties began on the night of 24 January, when the Flotilla began to operate a double patrol, one into the Mayu river, and one between Oyster Island and Akyab Harbour. The aim was to assist the Fourteenth Indian Division and to interrupt Japanese sea-borne communications. On the first patrol, M.L. 477 speedily came into action when she met two Japanese armed launches full of troops. A short and spirited engagement followed in which one Japanese launch was sunk and the other forced ashore.

The Flotilla carried out two other short operations before the close of January. In one of these, landing parties were put ashore without opposition on Oyster Island, and in the other, two motor launches carried out a raid on Kyaukpyu harbour. M.L. 439 entered the harbour but was unable to find more worthy targets than two small fishing craft, which were sunk.

February began with a series of anti-shipping sweeps in which H.D.M.L. 1102 of the Burma Navy co-operated. On 13 January 1943 during a patrol in the Mayu river, M.Ls 438 and 476 were engaged by a battery of Japanese 57-mm guns. During the duel which ensued the launch escaped damage, but a small Japanese fishing vessel which had been ill-advised enough to put in an appearance, was sunk.

On the 26th, a small but highly successful raid was carried out in Hunter's Bay. M.Ls 439, 440, 441 and 476 sailed from Teknaaf with a platoon of the Durham Light Infantry embarked, and at 2300 entered Myebon Creek. As the jetty was closed, figures were seen running towards the boats. Lt. Commander St. J. H. Heather, D.S.C., R.I.N.V.R., in M.L. 439 shouted to these men to secure the boat lines which they proceeded to do. They appeared to realise suddenly that something was wrong and turned to run away but immediately all machine guns which could be brought to bear opened

fire. Two of the Japanese were killed instantaneously and the third disappeared.

The troops were disembarked and proceeded ashore to carry out their demolitions. The launches carried out a general bombardment of Myebon village and of a Japanese machine-gun post which was disputing the assault. During this period Lt. S. M. Ahsan, R.I.N., with M.Ls 440 and 441, had been detailed to proceed up the river and look for a ship which had been located by air reconnaissance. This ship was found, and was engaged and subsequently destroyed by the two launches. In this action, Lt. S. M. Ahsan was awarded the Distinguished Service Cross. By the time M.Ls 440 and 441 had re-joined the main force, the troops had been re-embarked, and the whole Flotilla returned safely to Teknaaf on the 27th.

Next day the launches sailed from Teknaaf to attack Kyaukpyu, but en route two small Japanese steamers were sighted and after an exciting chase both were set on fire and sunk. This operation caused a commotion in the area, and the element of surprise was lost. It was therefore decided to abandon the attack on Kyaukpyu. In the middle of March, the Flotilla carried out the last operation of the season, a running bombardment of the road between Donbaik and Mayu Point. At the end of the month, the launches were withdrawn from Burma for refit.

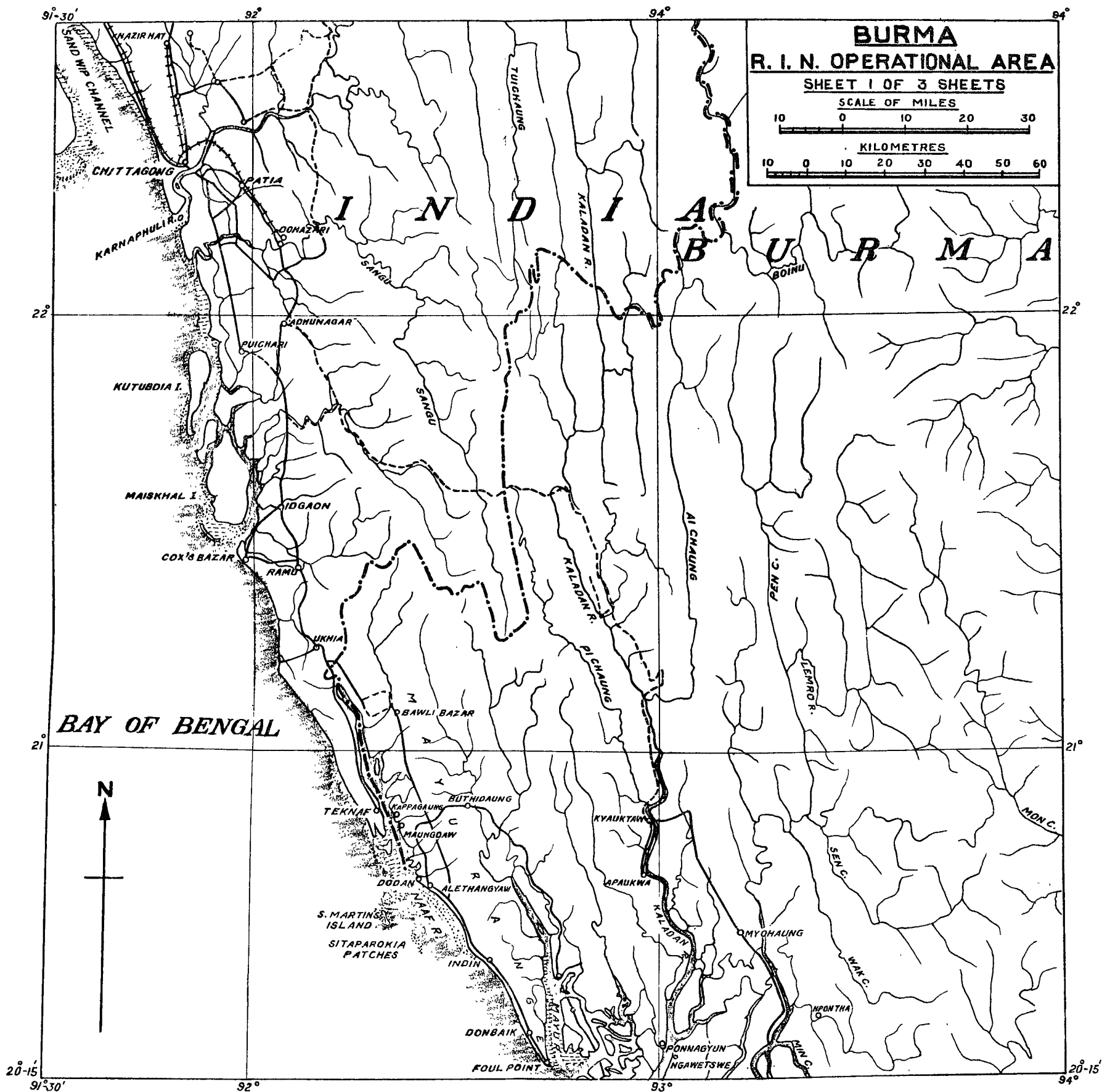
October-December 1943

They returned to begin the new campaign in October 1943, when M.Ls 438 and 474 carried out a delicate and difficult operation. Their job was to land a small reconnaissance party on the coast between Gwa and Bassein river, and this necessitated the towing by M.L. 438 of a landing craft all the way from Chittagong. The landing was made successfully and the two launches thereafter lay up in the lee of Foul Island for two days to re-embark the party.

In November M.L. 477 carried out another operation of this nature successfully.

Two bombardment operations in December brought the Flotilla some excitement. In the first, the Flotilla carried out an offensive sweep from Danson Bay to Combermere Bay searching for Japanese shipping. None was found, and the Flotilla therefore engaged itself in bombarding Japanese held coasts indiscriminately. On the way home M.L. 476 ran aground on Gwa Island but was successfully refloated.

On 13 November, M.Ls 439, 441 and 476 set off from Chittagong to carry out a bombardment operation against Japanese positions



on Ramree Island. The actual bombardment drew no return fire and went "entirely according to plan". The operational planning staff in the Naval Air Operation Room at Chittagong had been aware that a force of Japanese aircraft had recently been moved up into the area, and it was anticipated that these launches returning, apparently un-supported, from this operation, would provide a sufficiently tempting target to coax the Japanese Air Force into the sky. Accordingly an R.A.F. fighter escort was lying in wait just out of sight. On the morning of the 31st, the launches were attacked by some 32 Japanese Bombers and Zero Fighters. The Japanese pressed home their attack and the Flotilla was sorely pressed. M.L. 439 was straddled by three bombs; she was damaged and one member of her crew injured. Two other launches received several near misses. Just as things were beginning to look extremely grim, the fighter escort arrived on the scene and within sight of the launches shot down thirteen of the attacking bombers. They were credited with three more probables and a further seven damaged, and the launches reached Chittagong without further molestation.

Early 1944

The year 1944 began with the 55th M.L. Flotilla still operating alone in the Arakan waters. The year's first operation took place on 8 January, when M.Ls 475, 438 and 440 proceeded to an anchorage off Cox's Bazar from which course was set to approach Ramree Roads from the south-east through Childers Channel. As the boats arrived off Unguan Island, a fireworks display was put up by the Japanese, indicating that the Force had been observed. At 2147 the launches entered Ramree harbour. M.L. 440 had gone off to investigate three objects which were thought to be fishing craft, and M.Ls 475 and 438 proceeded un-opposed towards Dragon Shoal. At 2300 a small fishing vessel was sighted and intercepted for interrogation. A large amount of useful information was obtained. Meanwhile M.L. 440 signalled that the three fishing boats sighted had entered the harbour. Thereupon the M.Ls 475 and 438 altered course, increased speed and proceeded to intercept the Japanese craft. Unfortunately by the time navigational hazards (in the shape of rocks, shoals and fishing stakes) had been avoided, they had made their escape to the north, and the Force therefore re-formed and proceeded back to base.

The First H.D.M.Ls

At the end of 1943, the first H.D.M.Ls made their appearance in the Arakan waters. This was the 121st H.D.M.L. Flotilla

which arrived in Chittagong, and on 7 January these boats took part in their first operation. H.D.M.Ls 1120 and 1115 sailed to carry out three operations which, amongst other things, necessitated an entry being made into the Irrawaddi Delta, a strip of over a thousand miles in hostile waters, and absence from the base for 6 to 7 days. M.L. 477 was sailed to anchorage off Calventuras to act as wireless link, as it would be impossible for the H.D.M.Ls to communicate direct with the base in an emergency.

The H.D.M.Ls failed in their attempt to navigate in the Irrawaddi Delta owing to shallow water. All went well until the boats were attacked by Japanese bombers off Bassein Point. The hostile aircraft dropped six bombs and a spirited engagement ensued, the Japanese finally dis-engaging when the 2-pounders from the launches proved uncomfortably accurate. At this stage, H.D.M.L. 1120 developed engine trouble, and was forced to anchor off Foul Island to effect repairs. The report signals made by H.D.M.L. 1115 had been relayed successfully by M.L. 447, and this vessel, in order to ensure that H.D.M.L. 1120 was in fact safe, proceeded to Foul Island to render any necessary assistance. The H.D.M.L. however had already proceeded, and all boats returned safely to Chittagong on 15 January.

Change of Operational Base Teknaaf

Chittagong was proving more and more unsatisfactory as a base for operations. The XV Indian Corps, with headquarters some 8 miles north-east of Maungdaw, was anxious for closer support from the naval force, hence it was proposed that a proper advance base be set up for the boats at Teknaaf, and advanced base "Millie" came into being.

About this time the 56th M.L. Flotilla arrived in Chittagong and shortly afterwards 49th (South African) M.L. Flotilla also arrived. The H.D.M.Ls were strengthened by the arrival of the 145th H.D.M.L. (Royal Navy) Flotilla, and there was a healthy rivalry between the three navies in the ensuing operations.

From the end of January and throughout February the Japanese, both on land and in the air, showed an increasingly aggressive spirit. Several air-raids took place with Chittagong as the main objective, and the XV Corps was kept extremely busy on the Mayu range.

Between 24 and 26 January, M.Ls 447, 440, 474 and 476 carried out a bombardment of Ramree Island in the vicinity of Thames Point.

Air Attacks

February began with operation "Pioneer", carried out by M.Ls 475, 440 438 and 477. The object of this operation was to enter Kyaukpyu harbour and destroy any craft which might be sheltering there. When the boats approached the harbour, however, it was found that a net of rope was being dragged through the water by M.L. 475, and this eventually stopped the craft. It was found on investigation to be a wire boom, and considerable difficulty was experienced in clearing a length of wire which fouled the propeller. The boom actually consisted of $1\frac{1}{4}$ inch wire stretched across the entrance to the harbour from the southern part of Ledaung Kyun across the Reliance Shoal to the shore. It was supported by elliptical floats throughout its length, and at intervals by danbuoys heavily anchored. In view of this, it was decided that it would be impracticable to enter Kyaukpyu, and a long-range bombardment of Georgina Point was carried out without opposition.

While this operation was proceeding, the 56th M.L. Flotilla under Lt. A. J. Howard R.I.N.V.R., was carrying out its first operation, bombarding Minbyin, half way up on the western seaboard of Ramree Island. M.Ls 412, 419, 416 and 413 took part, and a successful bombardment culminating in a small explosion and fire ashore, was carried through. The Japanese apparently returned the fire, as red flashes were seen from the hillside, but no fall of shot was observed, and in due course the force returned to base.

During the night the weather deteriorated. M.L. 419 lost contact, and on the morning of 3 February this boat was attacked by 3 Japanese Zeroes, which dived on the boat out of the sun at less than 100 feet. The first attack was by machine-gun, and thereafter combined attacks, with machine-gun and bombs, were made by the Zeroes, attacking in pairs from either side, the first firing guns, and the second dropping bombs. The attack continued for four minutes, and the last two aircraft were hit by the midship Oerlikon. Three sticks of light bombs secured near misses, and one, apparently a 100-kilo armour piercing bomb, made a direct hit on the after end of the bridge wing. The armour plating on the bridge deflected the bomb which went through the deck and through the side of the ship one foot above the water line before exploding in the water. The tail of the bomb remained on board, and though the launch was damaged, no casualties were sustained.

On 8 February M.L. 416, while proceeding on a secret mission, was attacked some 20 miles south of Cox's Bazaar by a four-engined Japanese flying boat. The aircraft attacked from ahead, and one

bomb was dropped from 3,000 feet falling in the wake of the launch, about a hundred yards astern. Five attacking runs were made, on four of which bombs were dropped, but the launch was not hit. On the last run the aircraft came within the range of the M.L.'s guns for the first time, and some good shooting was put in by all armament. The aircraft swerved violently and disappeared astern in a steep dive. Owing to the engagement the secret operation was cancelled, and M.L. 416 returned to Chittagong on the 9th.

Amphibious Forces

During this period, it was necessary, in order to obtain information and to harass the Japanese south of Maungdaw, to maintain amphibious forces in the Naaf river. Motor launches frequently took part in these operations as escorts. The amphibious force consisted of the 290th Special Purpose Company under the command of Major Fairbanks, (christened by the sailors "Binks' Navy") and also some R.I.N. landing craft. The company transport consisted of five very ancient Indian Water Transport Steamers, armed with anti-tank guns mounted on wheels with Bren guns as anti-aircraft defence. The Commando was composed mainly of Pathans of the XV Corps and their own landing craft using Fleming lifeboats. The R.I.N. component was part of a landing craft wing force which had first arrived in the Arakan waters in December 1943, its strength being then 21st L.C.P.(L) Flotilla, and 42nd and 47th L.C.M. Flotillas. At the end of January some of the L.C.Ps had been employed in maintaining communications between the XV Corps at Bawli Bazaar, and the 5th Indian Division, located in and around Maungdaw, some twelve miles to the south. Subsequently they had been employed with the 81st (West African) Recce Regiment, and they were now seconded to assist the amphibious forces.

On the night of 12 February, the 290th Special Purpose Company was to convey two parties of the 81st West African Recce Regiment and V Force scouts from Maungdaw to Indin beach. M.L. 413 was detailed to stand by to assist, and when the second steam launch, *Kanayki* did not arrive, M.L. 413 undertook her duties and embarked a raiding party. Thereafter M.L. 413 and the steam launch *Damodar* proceeded in company to a point three miles south of Sitaparokia Rock, and at 2322 the raiding party embarked in one Fleming lifeboat and proceeded ashore, M.L. 413 anchoring seven cables off the beach. The Commandos had a successful time ashore, though the total Japanese casualties amounted to only five. The raiding force eventually embarked in M.L. 413 and returned to Teknaaf.

Next day M.L. 413 was again busy with the 290th Special Purpose Company, the object being to raid the coast in the area of Donbaik to obtain hostile information. A Commando party was landed, and in due course returned after completing its job.

On 13 February, 3 Landing Craft Personnel (Large) took part in a raid on Maugkandan and the village of Dodan at the mouth of the Naaf River. Three parties of West Africans were embarked at dusk at Kappagaung, together with local guides. Just before reaching the selected landing point, the craft encountered an underwater wire, carrying a number of small grenades, but this was successfully negotiated, and the beach was reached without being molested. The landing party was put ashore, and the three L.C.Ps lay off-shore to await events. A lone Japanese bomber spotted them in the light of a bright moon, and dropped three bombs, but no damage was done. Soon after dawn, the raiding party returned to the shore.

SHORE BOMBARDMENTS

Bombardment of Akyab Island

On 22 February, the whole M.L. Force was concentrated at Teknaaf. As the army required at this stage to keep as many Japanese occupied on the coast as possible, it was decided to carry out on the night of 26 and 27 February a large-scale bombardment of Akyab Island. Ten boats (M.Ls 474, 440, 441, 475, 476, 438, 412, 416, 380 and 831) all under the command of Lt. Cdr. H. M. Darbyshire, R. I. N. V. R., took part. The boats had an uneventful passage to Akyab and at 2300 opened fire together. Opposition consisted of machine-gun fire from the shore, and a certain amount of shell fire which was probably 75-mm. No damage or casualties were sustained, and the beach area was well plastered. The Force returned to Teknaaf on the 27th.

Early in March, operation "Birdseed" commenced. It was intended to interrupt any Japanese sea traffic in the vicinity of Ramree Harbour, and for this purpose two Forces were employed. The first, from the 55th M.L. Flotilla, was made up of M.Ls 438, 476, 440 and 477, and the second Force from the 56th M.L. Flotilla comprised M.Ls 412 and 417. The 55th M.L. Flotilla proceeded on 2 March and in due course entered Heywood Channel. M.L. 477 was detached with orders to enter Ramree Harbour, and the other boats commenced a patrol between Round Island and Sagu Island. From this time until early on 30 March a number of small craft and two fairly large fishing boats were intercepted. The crews

were taken prisoners and the boats sunk; the prisoners consisted mainly of Burmese whose duties were to ferry cargoes of vegetables to the Japanese garrisons on Round Island.

It had been arranged to rendezvous with the 56th Flotilla off Round Island at midnight, but, as these boats had not appeared by 0025 the motor launches re-formed and proceeded to Ramree Gates to establish contact with M.L. 477. This boat was not observed, and in actual fact her Commanding Officer, Lt. A. H. Russel R.I.N.V.R., having been able to enter Ramree Harbour without opposition, had taken the law in his own hands and was conducting a single-boat war of penetration. He succeeded in steaming right up Ramree harbour to a position opposite Ramree town, a distance of some 16 miles.

Meanwhile the 56th Flotilla boats, M.Ls 412 and 417, had been carrying out a sweep down the west side of Ramree Island. At 2355, about $1\frac{1}{2}$ miles north-east of Ramree Island, a small country craft was sighted. Its five occupants, who were engaged in supplying Japanese garrisons with provisions, were taken on board M.L. 417, which took the boat in tow. The Force now proceeded along the southern patrol line towards Sagu Island, but no other ships were sighted. Course was altered to proceed back to base. The total result of the operation was as follows :—

M.L. 438 sank two boats and captured 12 prisoners; M.L. 478 sank three boats and brought back seven prisoners; and M.L. 417 sank one boat and brought back five prisoners.

INTERRUPTING JAPANESE SUPPLIES

The prisoners were handed over to the Army Intelligence for questioning, and information of considerable value was obtained. It indicated that the Japanese traffic from Rangoon to the Mayu Peninsula was carried out entirely by inland waterways. Headquarters of what might be called the Japanese inland water transport were reported to be situated at Tamandu, from which place traffic proceeded through Myebon and Minchaung, and thence to Akyab. From Akyab the main channel of supply was the Kaladan River, and by Chaung to the Mayu River.

In order to cut this line of communications it was considered that the area between Gwa and Andrews Bay would be most favourable, as at this point it would be necessary for the Japanese to go into the open sea. A combined force of eight M.Ls (412, 416, 417, 440, 441, 439, 476 and 438) of the 55th and 56th Flotillas therefore

proceeded on operation "Corkscrew" which began on 7 March. The unit proceeded uneventfully as far as Gwa Bay, with the object of attacking any craft which might be found there, and of bombarding the shore installations. However, no targets were found inside the Bay and the Japanese made no attempt to attack the launches, although the force was less than a mile from the shore.

M.Ls 438 and 440 approached Andrews Bay from the south-west, and while crossing Sandoway Bay three small fishing boats were sighted and sunk. Intelligence had reported a gun sited in the vicinity of the Jetty, but this could not be seen, and range was therefore opened to 800 yards and a general bombardment carried out. A certain amount of opposition was experienced, but this was silenced after the first ten minutes, and the whole M.L. Force returned safely to the Naaf River on 8 March.

A COMBINED RAID

On 11 March, a combined force of the 55th and 56th M.L. Flotillas and Landing Craft carried out operation "Screwdriver", with the aim of destroying a Japanese Advanced Headquarters which was reported to be situated at the base Sitaparokia Rock. The operation fell into two parts: the first involved an assault by 44 (Marine) Commando on Alethangyan airstrip and village and was to be followed by the second part, an assault two days later in the same area by the 5th Army Commando.

It was intended to use St. Martin's Island, some eight miles from the mouth of the River Naaf, in the role of a Landing Ship Infantry, and to embark troops from here into L.C.Ps, which were to beach at Alethangyan, south of the Chaung, on to an excellent beach. Accordingly, right under the eyes of the Japanese forces on the other side of the bank, the Commandos were moved out of St. Martin's Island, and on the evening of 11 March, the convoy of 16 L.C.P. (L)s and supporting M.Ls moved out of the anchorage down river at 10 knots. The convoy arrived off St. Martin's Island in darkness, and almost immediately the L.C.Ps began to embark their serials from a beached L.C.P.(R), the Marine Commando in the first wave.

Meanwhile M.Ls had already been busy earlier in the day, and had bombarded the Japanese Headquarters at Sitaparokia Rock, leaving one large and five small fires burning in the target area. At 0515, M.L. 412 came under fire from a light gun which appeared to be sited to the north-east of the rock. Fire was not accurate, and though the position was shelled by 2-pounder and 3-pounder

guns, results could not be observed, and it was considered probable that little inconvenience had been caused on either side.

The landing at Alethangyan was made successfully. Apart from a few snipers, there was no opposition on the beach itself but, from inshore, could be heard the chatter of machine-guns and the dull thud of mortars. Four craft were hit and were beached, disabled; during the night their crews took part in the perimeter defence of the beachhead and conducted patrols. Next day, these four craft were repaired and refloated, the Commando was re-embarked under cover of fire from M.Ls 416 and 417, and the whole Force returned to Teknaaf.

The second assault was carried out in broad daylight. As the original beach chosen was under Japanese mortar fire, a second beach was selected at Ton Chaung. The first and second flights had to negotiate a sandbar before getting ashore, but at 1100 on the 14th the first troops of 44 Commando were landed without opposition, and the remainder were disembarked at leisure behind the cover of sand dunes and trees.

The following day, the Landing Craft Personnel and two Landing Craft Mechanized were employed in the difficult task of evacuating the wounded through fairly heavy surf; several craft broached to, and the L.C.Ps which attempted to tow the stranded craft off came under Japanese fire from mortars and 35-mm guns. Four motor launches were therefore called out at short notice to assist. M.L. 476 laid a smoke screen, and the other three M.Ls were eventually able to tow off all the landing craft and escort them back to the Naaf river.

LAST OPERATIONS OF THE EAESON

Weather was then deteriorating, and it was decided to withdraw all except a few H.D.M.Ls on 23 March. On 17 March, M.Ls 412, 419 and 417 sailed for a last long range operation with Gwa as the objective. The Bay was well searched but the Force drew a blank, and it was decided to attempt to enter the river. Shallow water prevented this, and it was decided to bombard Coconut Point and the village beyond, from this position. This was successfully carried out, and the village was well covered by gun and mortar fire. As soon as the bombardment opened, the boats were heavily and accurately engaged by Japanese mortars, sited on either side of the river entrance and on South Point. Several near misses were suffered by M.L. 417, and a lively engagement developed in which the shore guns were eventually silenced. It appeared that

the Japanese had reacted since the last visit of the M.Ls. and had been provided with reasonably strong defences, which on this occasion were well handled. It was probably fortunate that there was insufficient water to enable the boats to navigate the river, as otherwise it appeared that the boats would have been drawn into a well-set trap.

During the return trip an army 97 aircraft was sighted, and at 1141 it made a bombing run. M.L. 412 was the target, and the bomber made a high level attack, releasing four bombs from about 6,000 feet. Only two of the bombs exploded, falling one on either quarter about 70 and 100 yards away. M.L. 412 was not damaged, and it was impossible to retaliate as the aircraft was well out of range.

The operational season was brought to a close by operation "Curtain", a three-Flotilla bombardment of the coast between Indin and Mayu point. The 56th Flotilla was represented by M.Ls 412, 419, 416 and 417 (Lt. A. J. Howard R.I.N.V.R.), the 49th (South African) Flotilla by M.Ls 380, 381, 382 and 846 under Lt. D. R. Hollis, S.A.N.F. (V), and the 55th Flotilla by M.Ls 439, 441, 476 and 477 under Lt. Cdr. H.M. Darbyshire R.I.N.V.R. The three forces proceeded independently, each with its own objective. A number of fires were started up and down the coast, although little opposition was encountered apart from a certain amount of sporadic machine-gunning from positions ashore.

Secret Operations

Before closing this account a word might be said about M.L. 477 and M.L. 474 (Lt. K. J. Baber R.I.N.R.). These boats were mainly employed on long range jobs of a secret nature, many of which necessitated 4 and 5 days at sea in hostile waters, and the carrying on deck of large quantities of fuel, the hazards of which need not be stressed. On one occasion M.L. 477 was bombed by 12 Bombers and Fighter Bombers, but escaped unscathed. On a similar errand M.L. 477 made contact with an Akyab sloop, a sailing vessel of some 60 to 80 feet in length. The M.L. ran alongside the craft, and a boarding party went on board to search the vessel. This party was immediately attacked by machine-gun and tommy-gun fire from aft, one rating being killed and six wounded. M.L. 474 therefore disengaged and sank the vessel by gun fire.

For the season's work the R.I.N. was awarded 2 Distinguished Service Crosses and 5 Distinguished Service Medals and 9 officers and 4 ratings were mentioned in the Despatches.¹

¹ See Appendix XIV. For names of officers borne in ships which took part in the Burma Operations see Appendix XV.

Monsoon Operations

On 23 March the whole force was withdrawn and dispersed to Indian ports for refit, leaving H.D.M.Ls 1118, 1119 and 1120 as river patrols in the Naaf, based at Tombu. At the same time all Landing Craft were withdrawn with the exception of 6 L. C.P.(L)s, which were retained for use by the I Corps Commander. This detachment remained in the Arakan throughout the monsoon, and carried on a mail and ferry service up and down the Naaf river covering on an average 70 miles each day.

During this period of operations L.C.Ms of 42 and 47 Flotillas gave valuable aid to XV Corps by ferrying stores between Chittagong and Cox's Bazaar. They also assisted in the evacuation of the wounded further south. The H.D.M.Ls which had been left in Burmese waters did not allow the Japanese to forget that the R.I.N. was still interested in them and they carried out a number of bombardments in the southern reaches of the Naaf river. On 28 July, H.D.M.L. 1118 was engaged by Japanese 75-mm guns situated on the Mayu range south of Maungdaw. A number of near misses were suffered, and although the range was too great for the H.D.M.Ls' guns, army batteries were able to reply effectively. On 12 August, at 2300 while this H.D.M.L. was patrolling the entrance of the Naaf River, a country craft was sighted, and as this area was prohibited traffic after sunset, the boat was ordered to stop. Instead of complying, the country craft increased speed and a burst of machine-gun fire across her bows greeted the challenge. Fire was thereafter opened on the country craft, which settled rapidly.

On 12 September 1944, Lt. K. P. Nair R.I.N.V.R. was patrolling in the same H.D.M.L., in the vicinity of St. Martin's Island, and at about five in the evening he dropped anchor off the north-east corner of the Island. The H.D.M.L's officers proceeded ashore to contact the local inhabitants, who reported that an aircraft had crashed about 2 miles south. The M.L. therefore proceeded with all speed to this position, and found a Spitfire which had made forced landing on the fore-shore. The pilot was rescued, and was landed next day at Kappagaung.

On the same 12 September, H.D.M.Ls 1118, 1119 and 1120 were ordered to stand by in support of the army south of Maungdaw, and early on the morning of the 13th the boats were in position approximately half a cable off shore. Patrols were carried out to the mouth of the Naaf river and in the area of Ton Chaung. At first no hostile activity was apparent, but shortly after mid-day, Japanese shore batteries hotly engaged the H.D.M.Ls from the

foothills, and the boats were straddled. One shell fell close astern of H.D.M.L. 1119, badly wounding the Oerlikon gunner. Again it was impossible to hit back except via the army, and although violent evasive action was taken, two more casualties occurred, while in the meantime the gunner died of his wounds.

On 17 October, H.D.M.L. 1120 was ordered out on an air-sea rescue operation. The operation lasted for six days and was supported by some eight R.A.F. Liberators, but the search proved fruitless.

The R.A.F. Attack

Earlier in the month, on 7 October, a most unfortunate incident took place in the Naaf River. H.D.M.Ls 1118 and 1119 were lying at anchor off Maungdaw when two Spitfires were sighted approaching from the south, the aircraft being recognised as friendly. Shortly afterwards, the Spitfires, apparently mistaking the identity of the craft, heavily attacked the boats with cannon and machinegun fire. Two officers and seven ratings were killed, four officers and fourteen ratings wounded, and H.D.M.L. 1119 was sunk. H.D.M.L. 1118 was badly damaged and had to be patched up at Tombru before proceeding to Calcutta for proper repairs.

Coastal Forces Re-Assemble

While these operations were in progress the 56th M.L. Flotilla, having completed its refit, was working up at Vizagapatam, and the 55th M.L. Flotilla was at Trincomalee and later at Colombo. The boats had been slightly modified in the light of operational experience, and Bofors guns had been fitted in place of the after Oerlikon. The 55th Flotilla had been strengthened by the commissioning of M.Ls 390 and 844, and was shortly afterwards to be joined by M.L. 843, bringing it up to full strength.²

Coastal forces again assembled in Chittagong during the first week of October 1944 and included the 56th M.L. Flotilla (Lt. Commander A. J. Howard R.I.N.V.R.), the 55th Flotilla (Lt. Commander T.H.L. Macdonald, D.S.C., R.I.N.V.R.), the 49th (South African) M.L. Flotilla (Lt. G. Milne S.A.N.F.(V) and the 59th (Royal Navy) M.L. Flotilla (Lt. Commander A Campbell, D.S.C., B.R.N.V.R.). H.M.I.S. *Barracuda*, commanded by Lt. Commander J. H. Zappert, R.I.N.R., was the main base ship together with H.M.S. *Kedah* (Lt. Commander Allan, R.N.R.). A

² For names of officers borne in the Coastal Forces of the Burma Operations see Appendix XVI.

new arrival was a fleet tender, F.T. 14, with Lt. J. J. Julings, R.N.R. in Command, and also present were H.M.I. Ships *Sabari* and *Lady Myrtle*, two small tankers which had been taken over in 1943 from the Burmah Shell Oil Company as forward fuelling tankers. These two little ships were deserving of special mention. They were specially hard worked, for they had to follow the M. L. Flotillas and Landing Craft, wherever they went; without oil and petrol there could be no operations. Owing to the nature of their cargo no cooking was possible on board, and no smoking could be permitted. All food was of the tinned variety and the crews of the two boats achieved special distinction, in that Government sanction was obtained for a special ration scale to be issued to them.

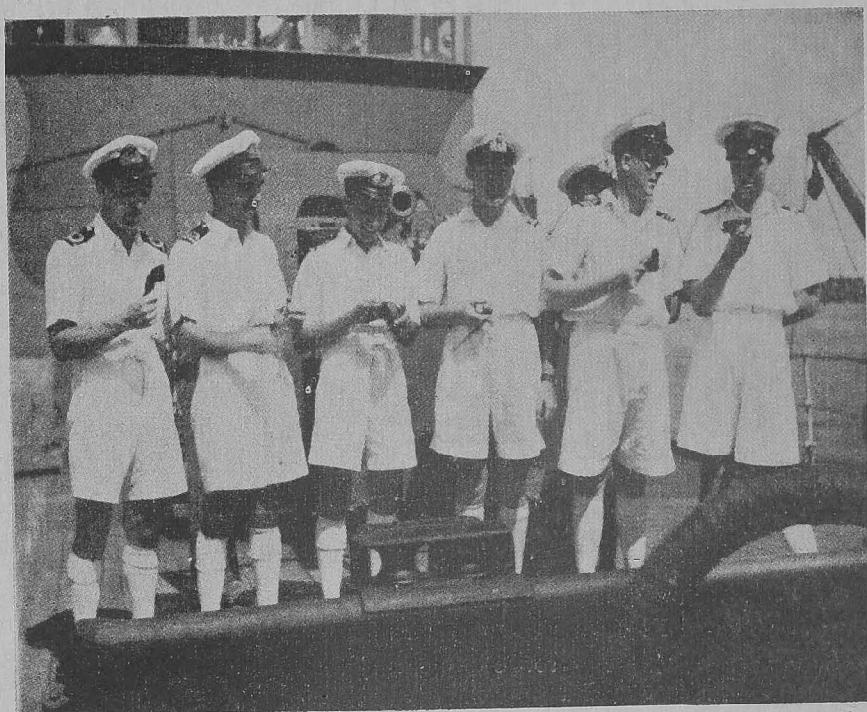
Operations were commanded by Commander R.R.W. Ashby D.S.C., R.N.V.R., with the title of Senior Officer Arakan Coastal Forces. His headquarters were in H.M.S. *Kedah*, and his staff were Lt. A.G.T. Dane R.I.N. as Staff Officer, Operations, Lt. P.C. Pinfield R.I.N.V.R. as Signal Officer and Lt. Mc. P. W. Greenhill, R.N.V.R. as Intelligence Officer. The whole force was under the command of Captain John Ryland, R.I.N., as Captain, Coastal Forces, while the planning of Naval Operations at Corps level was in the hands of Rear Admiral B.C.S. Martin, C.B.E., D.S.O., R.N., and his Staff, with Captain D.C. Hill, R.N. working at Divisional level.

The main base remained H.M.I.S. *Patunga* at Chittagong, commanded by Lt. Cdr. H. Revell R.I.N.V.R. During the monsoon the advance base at Teknaaf had been vastly improved, water had been laid down to the Jetty, and a pontoon landing stage and a basha camp were constructed.

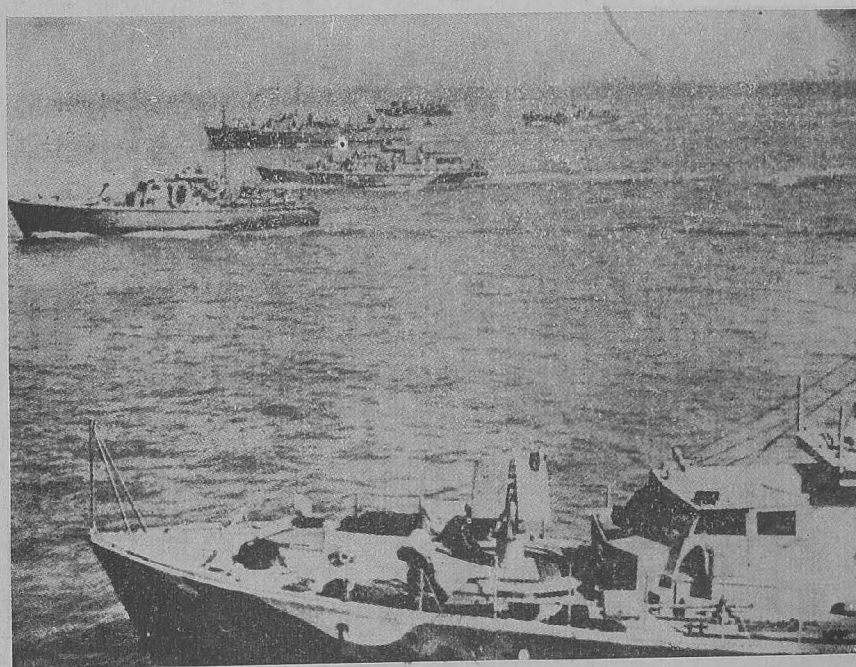
The original programme was for one flotilla to be operationally based in the Naaf, a second flotilla to support it, if necessary, from Chittagong, while the third flotilla continued working up.

New Season's Tasks

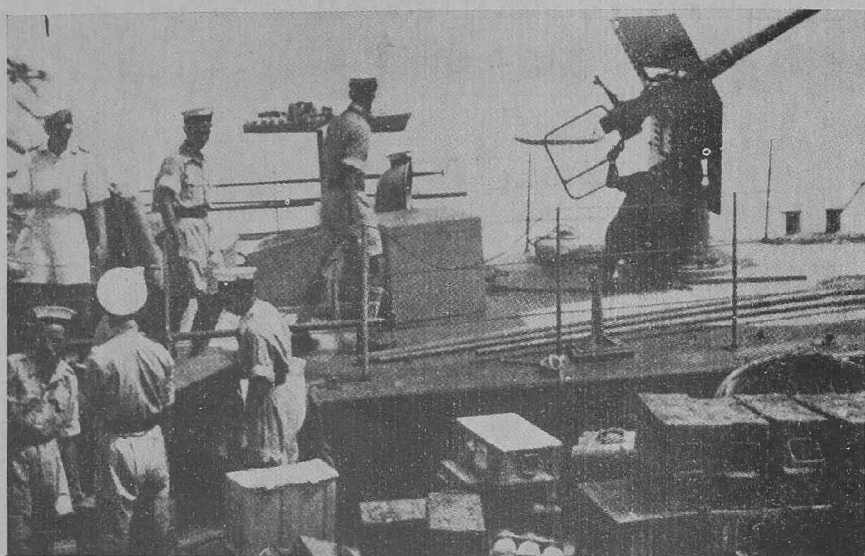
The operations were planned and carried out mainly on information received from XV Corps, and were designed to disrupt Japanese communications from the Naaf river southwards to the farthest extent. When the campaign opened in October 1944, the Japanese forces were holding the whole of the Arakan coast up to and including two miles of the left bank of the Naaf river. The duties of Coastal Force craft were to penetrate Japanese-held harbours and inland waterways and to interrupt supply routes, and to endeavour to retain Japanese forces on the coast so that the Fourteenth



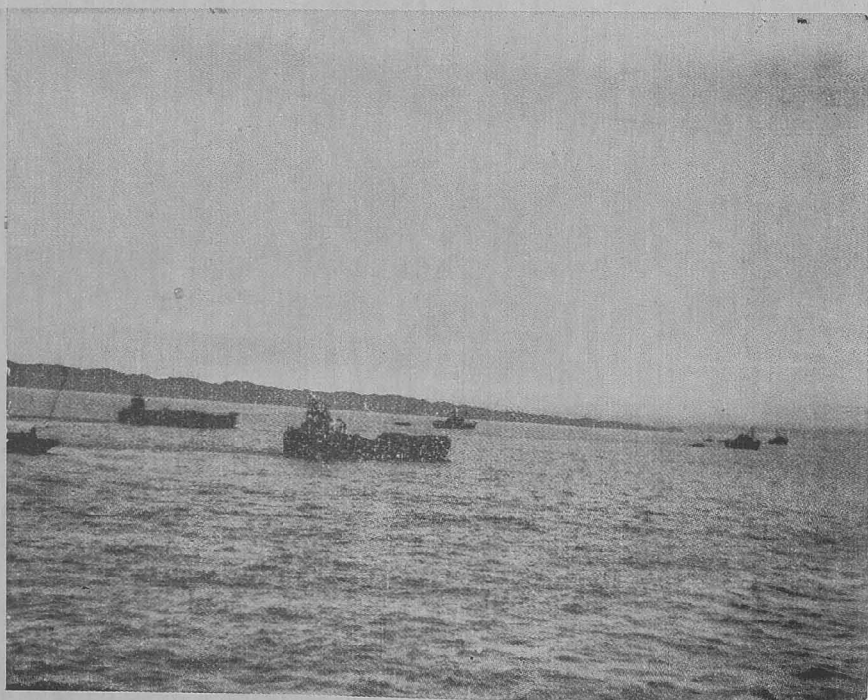
Officers of the *Bengal* with souvenir pieces of Jap shell fragments



Some of the speedy, hard-hitting units of the Royal Indian
Navy's Coastal Forces



At their Advanced Base on the Naaf river M.Ls of Arakan Coastal Forces embark stores and ammunition for another sortie into enemy water



Dawn view of L.C.T.s and motor mine-sweepers passing the Mayu Peninsula on their way to Akyab Island

Army could drive forward to Mandalay and thereafter to Rangoon. A glance at the map will show the vastness of this undertaking. Little if any information was available with regard to Japanese coastal defences, but the M.L. Force was largely successful in obtaining this information by the simple method of persuading Japanese batteries to fire on the boats.

As the army pressed forward along the coast it was necessary to support each movement with motor launches and to cover the army's flanks from surprise attacks by Japanese water-borne forces. The campaign proceeded in four distinct stages—first the capture of Akyab, second of Myebon, third of Ramree Island, and fourth of Tangup.

Little or nothing was known regarding the many and varied inland waterway channels. Army ordnance maps were the only guide, and intrusive operations had to be carried out using these maps and keeping careful navigational notes for subsequent surveys.

Landing Craft

At this period also the R.I.N. Landing Craft Wing was beginning to concentrate in the Arakan. In September 1944 the first small party had left for Chittagong, and a month later Nos. 21 and 23 L.C.P. Flotillas, No. 44 L.C.M. Flotilla, No.1 L.C.A. Flotilla and 'A' Beach Commando moved south into the Naaf River. They were housed in basha huts and tents in paddy fields on the edge of the river, in clean and fertile country. No. 1 L.C.A. Flotilla left for Rhegn Chaung, where they trained with the 26th Indian Division, and worked on combined operations pilotage duties in preparation for future operations.

The Campaign Opens

The honour of opening the season's campaign fell to the 56th M.L. Flotilla, and on 13 October 1944, M.L. 413 left Chittagong with a small party of army officers whose object was to land on Foul Island and rescue any air force personnel who might have found refuge there. At about 1400 on 14 October, the army party was ready for landing. The M.L. anchored off the north-east corner of the island, about one cable off the beach, and put the troops ashore. The whole island was combed without result, and shortly before six the landing party returned on board and course was set for Oyster Island. On the 15th this island was circumnavigated without sighting any signs of human habitation, and M.L. 413 returned to base at Chittagong on the 16th.

The previous day, two boats, M.L. 412 and M.L. 390, under the command of Lt. Comdr. A. J. Howard had embarked a Special Boat Section Party, and proceeded from Chittagong to carry out a reconnaissance of Japanese positions on Ramree Island. The weather grew steadily worse, with an overcast sky and intermittent rain, as the unit proceeded south, but late in the afternoon it improved to the westward. At 1800 when the landing position was being approached, the boats were silhouetted perfectly against the western sky, while heavy dark clouds hung over Ramree Island. Under these conditions, it was considered likely that the Force would be observed, and it was therefore decided to sacrifice part of the time ashore in order to facilitate an unobserved approach.

The motor launch passed undetected within $1\frac{1}{2}$ miles of Rocky Point, and M.L. 412 anchored a mile off shore with M.L. 390 further out to the eastward so as to cover the approach from that side. The Special Boat Section, consisting of a Major and five other ranks, set out by 2130 but was delayed by heavy surf among the rocks, and did not manage to land until four hours later, returning shortly before dawn. There was some difficulty in contacting the party on their return, as they came out three miles to the westward, but they were eventually picked up. The only sign of Japanese interest throughout the whole operations was a green very light fired from Rocky Point as the M.Ls withdrew.

Rathunt

Operation "Rathunt" commenced on 27 October under the command of Lt. Commander A. J. Howard, with M.Ls 412, 413, 419 and 844 sailing from St. Martin's Island just after midnight. Unfortunately early next morning M.L. 412 was disabled by a fractured exhaust pipe, and had to return to base, but the rest of the force continued, and Foul Island was sighted just before dusk on the 28th.

At six in the evening course was set to close Gwa at 12 knots but by 1830 a heavy rainstorm had obscured the coastline, and as it was considered impracticable to enter Gwa Bay under such conditions, the motor launches stopped and waited for the weather to clear. About 2020 it was possible to proceed and some 19 minutes later Gwa Bay was entered in close formation. A green signal flare was immediately fired from the hill opposite the entrance. No craft of any kind could be seen either in the Bay or in the Chaung to the south, but in the north-east corner four fishing canoes were seen paddling vigorously towards the eastern shore. One was overtaken before it could reach the shallows, and the occupant,

a Burmese, was brought on board. He declared that he knew nothing of any Japanese naval craft in the area, but stated that there were many guns around the southern beach; this area was accordingly closed, but no one was persuaded to take a shot at the naval force whose presence must by this time have been known.

At 2245 the unit left Gwa Bay and proceeded to sweep northward up the coast in extended port quarter line at 12 knots. Very shortly afterwards, M.L. 844 reported striking a submerged object, and was forced to stop one engine; she was therefore ordered to carry on independently to a previously arranged rendezvous position. It was the intention to enter Andrews Bay and to carry out a bombardment of the Jetty area, and by 0300 Money Point was reached without sighting any craft. The moon had then set, and visibility was so poor that considerable difficulty was experienced in entering Andrews Bay. Once inside, the Bay was searched in vain for shipping and the force stopped opposite Lontha Jetty at 0355. A Holman Flare showed up the Jetty area at about 600 yards range, and there appeared to be a few small boats lying up on the beach. The area was bombarded for 15 minutes and fire was well concentrated. M.L. 844 was overtaken on the 28th and anchor was dropped off St. Martin's Island just after dark.

Air Sea Rescue

During these weeks the 55th M.L. Flotilla had carried out an extensive working up programme, and on 4 November a report was received that a Flying Fortress had crashed into the sea about 110 miles south of Bassein Point. H.D.M.Ls 1120 and 1116 had already been stationed to meet just such an emergency in the area west of Cheduba Island. It was then decided to augment the search with two boats of the 55th Flotilla, and on the 4th M.L. 438 and 477 proceeded to the search area. By the afternoon of 6 November an area of some 1,600 square miles had been searched without result, and as the unit was running short of fuel, it was necessary to return to base which was reached on 7 November, after completing a trip of 990 miles. It was actually found on arrival in harbour that the H.D.M.Ls had been successful in picking up all but one member of the crew of the American aircraft.

Air Attack Again

The next operation was known as "Scupper" and was planned to sweep the coast of Burma from Cape Negrais northward to Gwa. Lt. Commander A. J. Howard was once again in-charge, and on 9 November he sailed with M.Ls 412, 419 and 413. Course was

set from the Naaf River well clear of any possible observation from land, and the search was uneventful until 1720 on 10 November when the unit was circled by one Dinah aircraft which kept well out of range. It was thought unlikely that the Japanese would be able to issue a warning in time to stop any coast-wise shipping which might be leaving Bassein after dark, and consequently no change in plan was made. At 1800 course was altered to close the coast, and at 2000 the Force reached a position some five miles south of Cape Negrais and began to follow the coast line northward.

By 0420 on 11 November the motor launches were one mile west of Gwa Island. The harbour entrance was closed but no ships were seen, and course was therefore shaped for base. At 1213 the unit was attacked by two Lily aircraft simultaneously. The first plane attacked from the starboard quarter and straddled M.L. 419 with two bombs, one member of the Bofors crew being wounded in the leg by machine-gun fire. This aircraft circled and attacked again from the port beam, and this time one bomb exploded on the port side of M.L. 419 and the other bounced over the motor launch and failed to explode. Meanwhile the second plane attacked M.L. 412 from the port bow, dropping two bombs which landed 20 yards off but did not explode. The aircraft also put a machine-gun bullet into the wheelhouse and, carrying on, missed the stern of M.L. 413 and dropped a bomb in her wake. All the attacks were carried out at Zero feet, and were pressed home with great determination in the face of heavy fire from the motor launch. The technique employed was skip bombing, and impressed all hands as being highly dangerous, although it had the compensation of being equally unpleasant for the attackers.

During the attack one aircraft was repeatedly hit by both 412 and 413 and the other received damage from 419 and 412, and was seen to enter the water with a great splash about 12 cables on the unit's starboard quarters, while the other plane was found to be smoking from its starboard engine. During the engagement Fighter cover (P. 38s of the U.S.A.A.F.) which had been previously arranged, arrived, and the remaining plane was chased out of sight and shot down.

Landing Craft Commando Raids

During this time the R.I.N. Landing Craft had been carrying out their first operation of the season. A Landing Craft Personnel from 21 Flotilla took part in a raid on Elizabeth Island, nearly 60 miles south of Akyab. A troop of 42 (Royal Marine) Commando embarked in a South African motor launch and after steaming south

throughout the day they arrived at 2300 in Hunter's Bay, off the north coast of Elizabeth Island. The purpose of the raid was to obtain prisoners and to try to ascertain the whereabouts of an R.N. V.R. officer lost on a previous reconnaissance raid in this area. The area off the beach was full of uncharted rocks and shoals, and was surrounded on three sides by tall commanding cliffs, and jungle-covered hills. As the Landing Craft Personnel was heading for the beach with the Commandos aboard, what appeared to be a large Japanese Sampan was sighted off shore. It was decided to attack. At full speed the Landing Craft Personnel approached the supposed hostile craft, and 10 yards short the Coxswain received orders to stop. The L.C.P. missed striking the dark shape narrowly which was actually a rock. The craft continued to the beach and disembarked the commando party.

The Landing Craft Personnel anchored off-shore while the raiding party operated on the Island. About 0200 the Landing Craft Personnel went inshore to re-embark the party, but the propeller was badly fouled by a wire rope when only about half had been embarked. The craft was paddled clear of the rocks, and the crew stripped, and with a hacksaw began to cut away the rope. This took some 40 minutes, while the party ashore had been sending emergency signals for some time. The Japanese were approaching closer and could then be plainly heard, but in the end the remaining Commandos were successfully re-embarked with their prisoner. After reaching the motor launch volunteers were called for to return and find one missing man. The craft returned, but after searching the beach it was decided that the man was not there, and the craft returned to the M.L. The Landing Craft Personnel was then taken in tow, and Teknaaf was reached late in the afternoon.

On 15 November, M.L. 412 and 413, embarked a Special Boat Section party and proceeded with two L.C.Ps in tow. It was intended to land this party in Cheduba Straits, which were entered at 2016 without incident, and course was set to close Button Island, and from there landfall was made $1\frac{1}{2}$ miles west, the M.L. anchoring in four fathoms one mile off Uga Chaung. The Special Boat Section left the ship shortly before 2200 and soon afterwards a green flare was seen, and a beacon fire was it on a neighbouring hill. It was obvious that the Japanese were not asleep.

At 2248 the landing party returned. They stated that they had closed the beach by the breakwater off Uga Chaung and had then proceeded to the landing position 200 yards to the west-ward. Immediately after the party landed, the green flare had been seen

and a man was observed patrolling the beach. The landing party provided sufficient information of hostile positions to justify a bombardment, and at 2320 fire was opened with all guns. No return fire was observed on this occasion, and half-an-hour after midnight the unit cleared Cheduba Straits and returned to the advanced base at Teknaaf.

A further operation on these lines was conducted by M.Ls 416 and 843. On this occasion the landing area was in the vicinity of Indin and information of considerable value was obtained.

Refit

The 56th Flotilla had then a fairly long stretch of continuous operations, and it was time for them to withdraw and return to Madras for six weeks refit. The 49th Flotilla (South African) took over offensive duties in the Naaf River, with the 55th Flotilla in reserve at chittagong, and this was the position at the end of November.

55th Flotilla Resumes

In order to enliven the working up programme being carried out by the 55th M. L. Flotilla, a bombardment operation was allotted to this unit on 3 December, and M.Ls 474, 476, 477, 438 and 441 sailed at midnight from Chittagong, proceeding south of Cheduba Island. Landfall was made two miles south of Thames Point on Ramree Island, and as there was some time to spare, an offensive sweep was carried out into the narrows of Cheduba Straits. At 2045 the motor launches were engaged by a long range Japanese gun situated on Rocky Point, but the shooting was poor and caused no inconvenience, course and speed being maintained. At 2210 the narrows were entered without sighting any hostile shipping, and the force turned northwards to carry out bombardment of Minbyin. When some three miles south of Rocky Point, the Japanese again opened fire, and as the third shell fell just short of M.L. 474, course and speed were altered and the shelling ceased.

The target area was reached at 2340; the coast was closed to 800 yards and the bombardment continued for 20 minutes. At 0005, the cease fire was ordered, and the force returned to Chittagong on the 4th.

Then there ensued a period of comparative inactivity. The 36th R.N.M.L. Flotilla joined the 55th in Chittagong, and two or three operations were carried out to harass the Japanese down the coast, in order to keep them busy, and allow the new boats to settle down.

"A" Raid

On 13 December, M.Ls 438 and 441 arrived at Teknaaf before proceeding on an operation to capture a prisoner from the Taungup area, who could give information about Japanese movements. Three army officers and eight other ranks were embarked with three canoes on the 14th, and the Force sailed for St. Martin's Island, where anchor was dropped for the night.

At 0330 on the morning of 15 December anchor was weighed, and the motor launches proceeded, adjusting course and speed to arrive off Unguan Island at last light. At 2215 the coast was closed in the vicinity of Bell Rock, and anchor was cast $1\frac{1}{2}$ miles off the selected beach. 15 minutes later the army party embarked in their canoes and made for the beach, reporting their arrival by signal 75 minutes later. It had been arranged that M.L. 439 would burn a red masthead light from 0100 to 0130 to guide the party back to the boats. When by 0330 no sign of them had been evident considerable anxiety was felt. Every attempt was made to contact them, a red Aldis lamp being flashed through, and Very lights fired. As may be imagined the Japanese became extremely interested in this free fireworks display. However, this manoeuvre brought forth its results, and the army party eventually returned to the boats, having been misled by a white light which was burning from the masthead of a fishing dhow in the vicinity of Taungup Chaung. The party was successful in capturing a local Burman.

After the soldiers and their unfortunate prisoner had been re-embarked, the unit proceeded to engage the fishing vessel. At 0350 with soundings of two fathoms, fire was opened, and the light immediately extinguished. It was impossible to close the coast owing to shallow water, and the results of the bombardment could not be observed. Shortly afterwards course was set to leave the bay, and the Japanese engaged the unit with mortars and one long-range gun. No damage or casualties were sustained, and the motor-launches returned to base on the evening of the 16th.

Offensive Sweeps

On 21 December M.Ls 477, 847 and 855 (the last two boats belonging to the 36th Flotilla), carried out an offensive sweep from Gwa to Bluff Cape. No shipping was sighted, and it was decided to provoke attention by illuminating a section of the coast with flares and carrying out a three-minute bombardment. Nothing was seen and the force retired to Bluff Cape. Kyint Ala Creek was closed and a short bombardment carried out into the anchorage without

any results being observed. On the 22nd the M.Ls returned to Teknaaf.

The last operation for 1944 was carried out by M.Ls 439, 440 and 441. The Force sailed on 26 December at five in the evening, and twenty-four hours later Foul Island was abeam to starboard half-a-mile distant. Course was altered for Bluff Cape, and a sweep was carried out up the coast to Honan Gon point. Andrews Bay was entered and a search carried out inside the Bay to within $1\frac{1}{2}$ miles of Transit Hill. The main target for the night was Lontha Jetty, and this was closed at 2245. The three motor launches bombarded the area of the jetty and Customs House in turn, and also a small building on the foreshore which was unmistakably a Japanese shelter. The fall of shot was well concentrated in the target area. Course was set for Chittagong which was reached at midnight on the 28th.

THE ASSAULT ON AKYAB

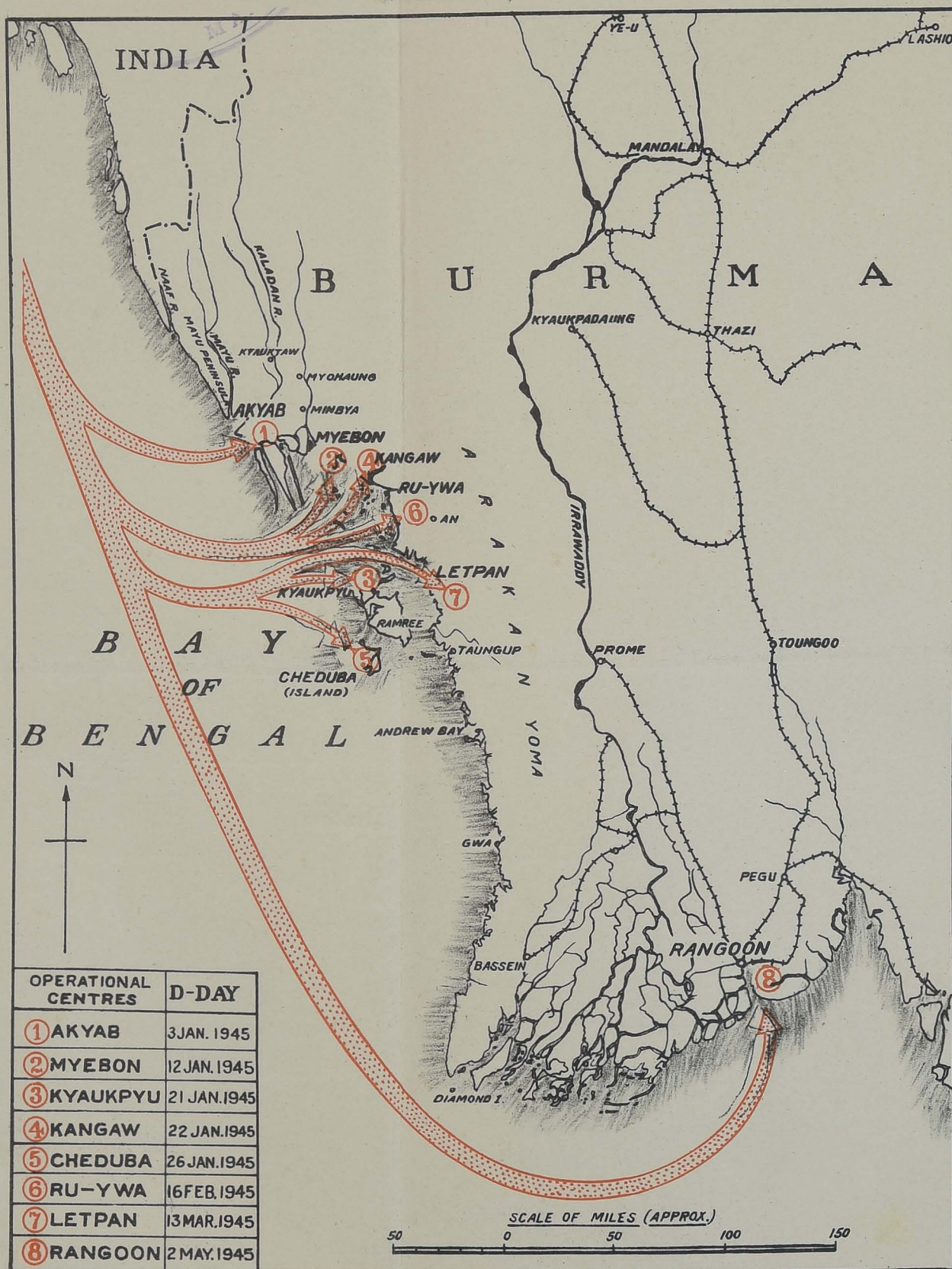
Planning

On 27 December 1944, at midnight, Commander G. T. Moger, O.B.E., R.I.N., Senior Officer, Minor Landing Craft, summoned all Landing Craft officers commanding flotillas or squadrons to his tent, and informed them that at last the day had arrived for a major effort. After brief instructions the officers were dismissed, and by 0400 on 28 December the first L.C.A. Flotilla was making its way down the Karnaphuli river, securing to the Naaf river buoys at 1800. The anchorage began to fill up quickly as R.I.N. and Royal Marine Landing Craft Mechanized, Landing Craft Assault and other craft arrived in a long unending stream. Destroyers, sloops, British Yard Mine Sweepers and Coastal Force craft began to appear out of the blue.

On 30 December, the Senior Officer, 55th M.L. Flotilla, received a signal ordering him to prepare forthwith for sea, and to sail at dawn on the 31st for Teknaaf. The whole Flotilla sailed as ordered, and arrived at the advanced base on the same evening.

The New Year was celebrated quietly, with feelings of tense expectation, and on 1 January 1945 all senior officers were ordered ashore to be briefed, and it then became known that a large scale assault on Akyab was to take place at dawn on 3 January. This represented a change of plan, for the original assault on Akyab had been timed for a later date, coinciding with the expected arrival of the 74th Indian Infantry Brigade of the 25th Indian Division (then advancing down the Mayu Peninsula) at Foul Point (opposite Akyab). As Japanese resistance grew progressively weaker, how-

ROYAL INDIAN NAVY EIGHT AMPHIBIOUS OPERATIONS IN BURMA



ever, it was estimated that the 74th Brigade would be able to arrive at Foul Point on 30 December, and it was therefore decided to take advantage of the situation, and attack immediately. The following Flotillas were at that time in the Naaf river—49th M.L. Flotilla, 36th M.L. Flotilla, 55th M.L. Flotilla. Fleet Tender 14 had been converted for duties as Headquarters Ship, as H.M.S. *Kedah* and H.M.I.S. *Barracuda* were considered to be too valuable as supply and base ships for this duty.

At 2000 Senior Officers of motor-launch flotillas, together with Commanding Officers of individual boats, congregated in F. T. 14's diminutive operations room. Each motor launch was given specific duties, some for close support to Landing Craft, others as navigational aids; and a reserve striking force was also allocated.

Meanwhile the Landing Craft were preparing in a frantic hurry. Operation "Lightning" as the assault was called, was well named, for there was scarcely time to issue operational orders and do all that was necessary before Zero hour. Numbers were painted on the Craft in chalk, mud or the closest available fluid; and scraps of material were hurriedly made into usable stores.

At dawn on 2 January Lt. Cdr. T.H.L. Macdonald D.S.C., R.I.N.V.R., in M.L. 439 proceeded to the mouth of the Mayu River in order to lay danbuoys as guides for the next day's landing. The Navigating Officer from one of H.M. destroyers was detailed as Survey Officer. The buoys were successfully laid, and great surprise was experienced as M.L. 439 remained in sight of the Japanese battery positions half a mile distant without being engaged.

Embarkation

On the morning of 2 January scores of Landing Craft Assault were busy transferring the assault force from the American shore pontoon at Teknaaf to destroyers, sloops, and motor launches. Landing Craft Mechanized and Tank Landing Craft loaded tanks alongside the jetty, and Landing Craft Personnel raced round the harbour delivering last-minute instructions to ships. At 1100 a long line of craft and ships began steaming out towards St. Martin's Island, anchoring as they reached a point some three miles south of the island. By nightfall, the ships were all assembled, and at 0400 the convoy and the Bombardment Force (H.M.S. *Newcastle*, H.M.S. *Phoebe* and four destroyers) began their journey down the coast towards Akyab. At 1100 on 3 January the release position was reached, and the assault, timed for 1230, went off without a hitch. Information had been received earlier that morning that

Akyab Island had been evacuated by the Japanese, and the bombardment plans were cancelled.

After the initial landing a ferry service was begun, lifting the 74th Brigade from Foul Point on the mainland to Akyab Island. Landing Craft Mechanized carried the burden of the load and worked without a break until the stores of the whole brigade had been transferred. The beaches at Foul Point were under the control of officers from "A" Beach Commando R.I.N.

Lack of opposition could not detract from the achievement of planning, mounting and execution of the operation in six days. For most of the Landing Craft crews, as for the troops, it was their first Combined Operation. Some of the Royal Marine Landing Craft personnel had in fact, only arrived from India and the United Kingdom on the day previous to the mounting.

Blockade of Kaladan

On 3 January the 55th M.L. Flotilla was sent to blockade the Myebon area, as it had been reported that the Japanese leaving Akyab Island were escaping to the south-east across the Kaladan river. M.Ls 477, 476, 438 and 439 sailed at 1808 and arrived at the mouth of the Sakaen river at midnight. M.Ls 477 and 476 anchored in the mouth of the river about 2 cables apart, while 438 and 439 were allotted the Myebon river and anchored east of the Myebon Peninsula.

Nothing was contacted during the first part of the night but at 0500 on 4 January M.L. 439 reported the Japanese to be in sight and all boats slipped and proceeded to investigate. The enemy, however, proved to be only a sampan with three fishermen who were duly captured while making efforts to escape. At daylight the Senior Officer ordered M.L. 439 to return to base with the prisoners for interrogation, while the remainder of the force withdrew slightly to a position one mile west of Sigyat, in order to observe as large an area as possible. There was no sign of the Japanese force during daylight.

At five in the evening, M.L. 438 was detached to blockade the Myebon river, while M.Ls 477 and 476 proceeded down the Sakaen river as far as its junction with the Lemru river. Nothing was sighted on the outward journey, but while the force was returning two buoys which had been spotted earlier were investigated, and were found to be buoys for a hawser boom stretched three-quarters of the way across the river. The buoys were brought on board and the boom destroyed. At 1830 M.L. 439 re-joined, and the four

vessels took up night dispositions across the mouth of the Sakaen river. Again nothing was sighted during the night, and at five on the morning of the 5th, the Force withdrew to the previous day's anchorage. During the day M.L. 439 surveyed the channel east of the Myebon Peninsula for a distance of four miles, while M.Ls 438 and 476 remained at anchor and 477 proceeded to investigate Myebon Creek, and to remove a small portion of the river boom which had escaped attention the previous night.

R.A.F. Attack Again

Shortly before 1100 five aircraft were sighted over the Myebon river. At the same time M.L. 439 reported that she was being engaged from the beach by rifle and machine-gun fire. At 1050, 439 reported having been attacked by aircraft and as having sustained both casualties and damage. 438 and 476 were immediately despatched to her assistance, and it transpired that M.L. 439 had sustained three casualties due to shots from the shore, and while she was replying to this, four R.A.F. planes in the vicinity had apparently considered the fire to be directed at them and had attacked. Twenty-one cannon shells from the aircraft had penetrated 439's hull, and she was making water fast. Luckily the aircraft had immediately realised their error. Temporary repairs were carried out to M.L. 439, and the Force withdrew on being relieved by four boats of the 49th Flotilla.

Landing Craft Base

The Landing Craft in Akyab in the meantime had moved into the Satyogya Chaung, a deep creek on the north-east side of Akyab with steep banks winding through a mass of damaged buildings, derelict rice mills and tumble-down jetties, and the personnel settled into these "billets" adjoining the Chaung.

H.M.I.S. "NARBADA" & H.M.J.S. "JUMNA" IN ACTION

The two sloops, *Narbada* (Captain H.M. St. L. Nott, O.B.E., R.I.N.) and the *Jumna* (Commander K.R.U. Todd, R.I.N.) had sailed from Chittagong five minutes before midnight on the 3rd, and arrived at Akyab at 1345 on the 4th, anchoring between the main jetty and the wreck of H.M.I.S. *Indus*. They were among the first ships to enter the re-captured port, and at 1700 in the evening the Commanding Officers landed with the Captain, 7th Destroyer Flotilla, and inspected the town and beaches. They found the town empty and desolate while the beaches did not appear to have been in a proper state of defence for some time. Also in the harbour at

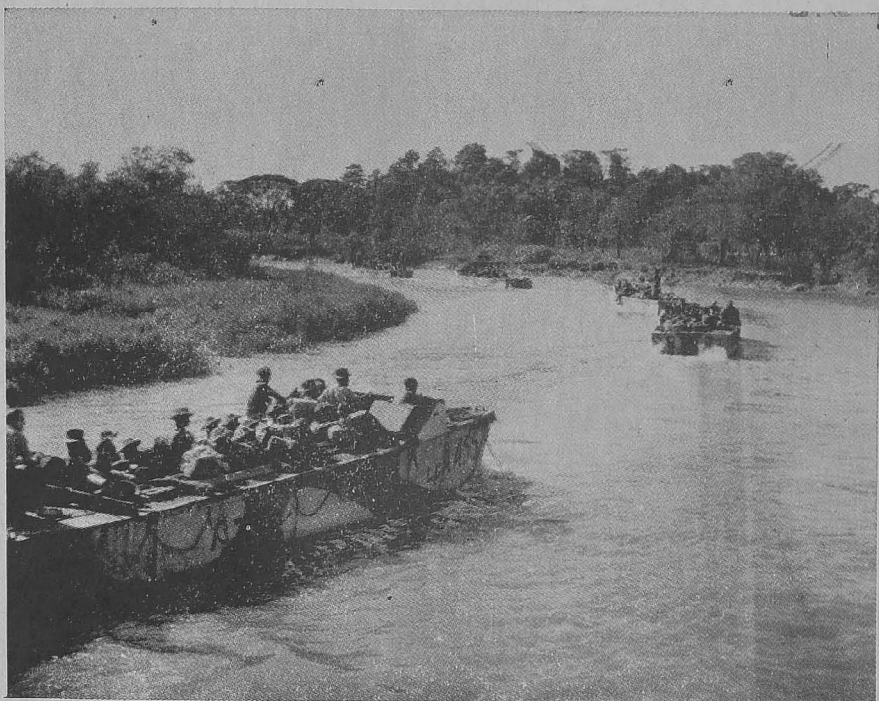
this period were H.M.A.S. *Napier*, H.M.A.S. *Nepal* (flying the flag of the Senior Officer, Force W) and H.M.S. *Shoreham*.

Early on 5 January H.M.I.S. *Jumna* was sent to Teknaaf to bring up army stores and petrol and she returned on the 7th. Meanwhile an assault on the Baronga Islands was planned, and on 6 January H.M.I.S. *Narbada* had taken up a bombarding position off the entrance to the Kywegu river. It was later discovered that the Barongas had been evacuated, and the operation was therefore cancelled.

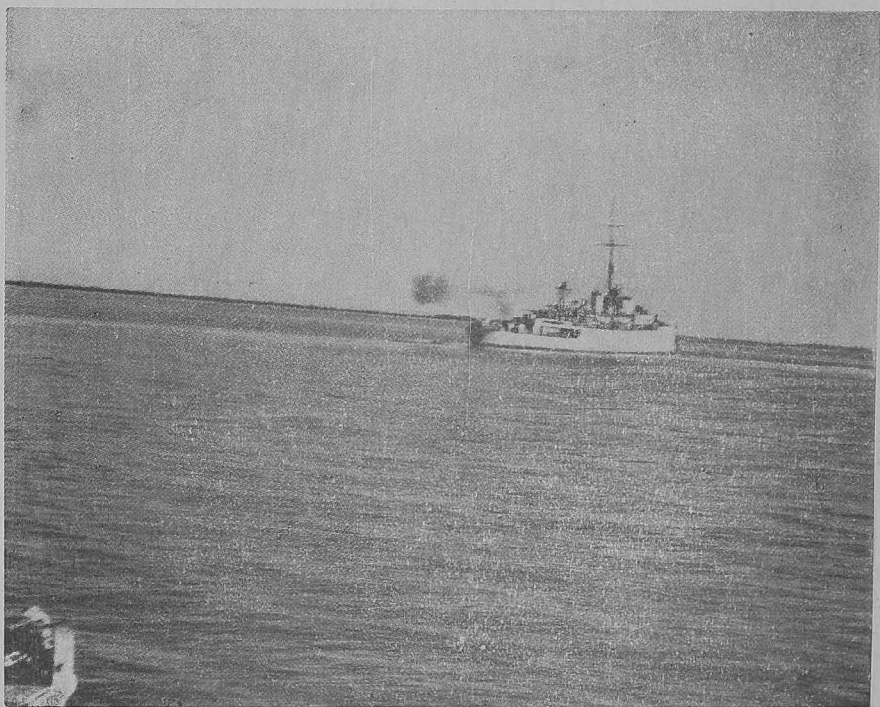
The scene of operations now shifted to the Kaladan river. On 7 January, the 53rd Indian Brigade had contacted Japanese forces northwards of Akyab, and more forces including a Headquarters were reported to be at Ponnagyun, 15 miles up the Kaladan river. It was therefore decided that the *Narbada* and the *Jumna* together with M.L. 381 and 829 should proceed up-river immediately in order to prevent the escape of those Japanese forces to the east bank of the Kaladan, and that on the following day a battalion of the Garhwal Rifles should be landed to attack them. The naval forces proceeded up the Kaladan unmolested. No difficulty was experienced in navigation, the numerous pagodas making good landmarks. The ships arrived off Ponnagyun at 0430 on 7 January, turned to stem the flood tide, and anchored. The two motor launches were sent on a reconnaissance along the banks.

At 1440 fire was opened on the *Jumna* from the east bank, and at 1442 on the *Narbada*. The fire was from 3.37-mm anti-tank guns in the village of Nagawetswe, and at about 2,000 yards range was very accurate. The *Jumna* was hit twice immediately and the *Narbada* quickly straddled. Both ships weighed anchor and opened fire with their main armament. After two 6-gun salvos from each ship, one gun was silenced and about a dozen men were observed running for cover inland. A third salvo silenced the remaining guns and more Japanese soldiers were seen in flight. The ships continued direct bombardment whenever the hostile personnel were seen until 1500.

During this short action, the two motor-launches had sighted a party of about 20-30 Japanese infantry on the west bank, whom they engaged with Bofors and 3 pounders. Later the *Narbada* and the *Jumna* joined them. The Japanese did not relish the fire at close range and disappeared in disorder into the jungle. At 1615 M.L. 829 was dispatched to make a reconnaissance of the beaches on the west bank, and it was decided that a landing would be effected at any point 2 miles north or south of Ponnagyun. An army



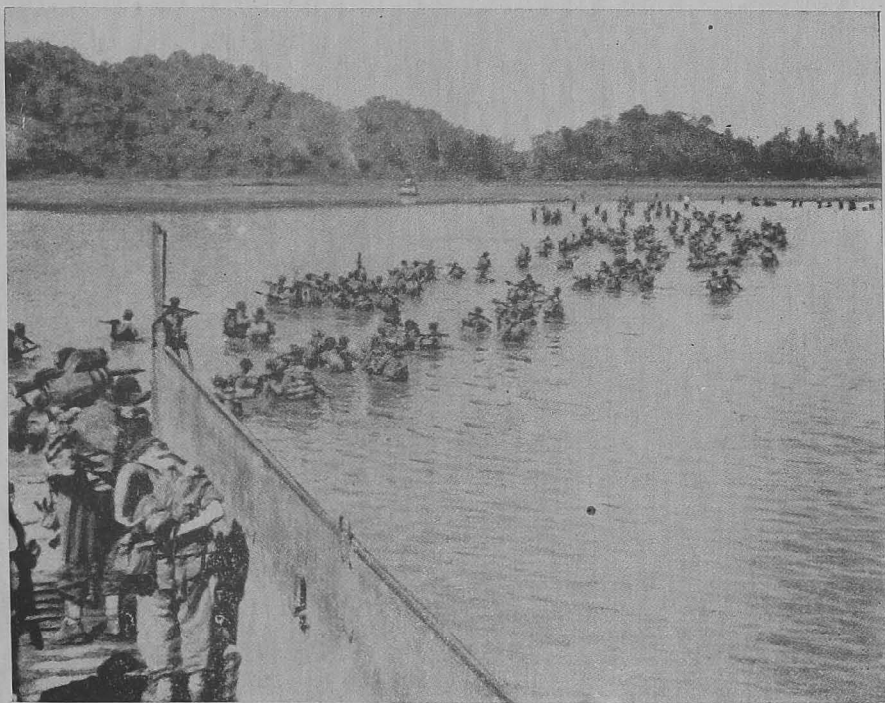
L.C.As on their way to Ponnagyun in the Kaladan Valley
with a battalion of Royal Garhwal Rifles



H.M.I.S. *Jumna* fires a four-inch salvo into the Japanese defences



M.Ls of Arakan Coastal Forces sail into liberated port of Akyab



Reinforcements wade ashore at Myebon, supporting one another as they feel their way over the soft mud bottom

co-operation aircraft patrolled the area from 1415 to 1613 but the pilot caught only occasional glimpses of the Japanese, who had by then hidden in the thick jungle.

The Locals Arrive

At 1745 one of the motor launches brought on board a party of local Burmese and Arakanese, and with the aid of an Able Seaman loaned by the Burma R.N.V.R., these villagers were questioned. Shortly afterwards other sampans bearing villagers arrived and about 30 local inhabitants including some ex-officials of the Burma Government came aboard. They were delighted to see the ships and willingly gave all possible information. They stated that Ponnagyun had been the headquarters of the Japanese Division; that there had been a general withdrawal by sampan and two or three large motor craft across the river from west to east during the previous three weeks; some 700 and 800 Japanese had crossed, taking some guns, one of the villagers stated that he had been supplying the Japanese Headquarters with fish. Most of the officers, he said, had left the previous day, but he had been to the Headquarters that morning and had seen one officer. He was at once appointed officiating bombardment liaison officer and a registration salvo was fired at his direction. By signs and interpretation the necessary spotting corrections were ascertained and applied, and some well directed salvos were then placed in the area.

During the night of 7 and 8 January, the motor launches were used to patrol the river for five miles north and south of Ponnagyun, and also up the Kaladan river. The sloops kept the banks and river under constant illumination with search lights, star shells and snowflake, and the motor launches with mortar flare and six-inch Aldis, so that no Japanese troops could cross the river that night. At about 2000 a few rifle shots were fired at the *Narbada* but a burst of pom-pom fire discouraged any further activity on the part of the Japanese. At daylight many villagers appeared on both banks waving white flags and reported that the Japanese had withdrawn inland. About 0900 (on 7 January) an observation aircraft arrived and located some hostile bunkers near Ponnagyun Pagoda, and these were effectively engaged.

Landing in the Kaladan

The assault was carried out on 8 January. There had been some delay in getting the troops into Akyab on the previous night, and so in embarking them in Landing Craft Assault, but at 1135 Brigadier Girtie arrived on board the *Narbada* by Harbour Defence

Motor Launch. It was decided to put the troops comprising one battalion of the Garhwal Rifles in at Nattseikkonbauk, and to advance up-river towards Uritaung and Ponnagyun. The assault was made by 20 Landing Crafts Assault supported by motor launches 381 and 820 at 1225. There was no opposition and the troops quickly occupied Uritaung. The Landing Craft Assault were then used to help them across Min Chaung and shortly afterwards they gained contact with the hostile force.

At this point H.M.I.S. *Narbada* was re-called to Akyab. H.M.I.S. *Jumna* remained in the Kaladan during the day and shelled Hinkaya in the evening. She returned to Akyab at noon on the night of the 8th.

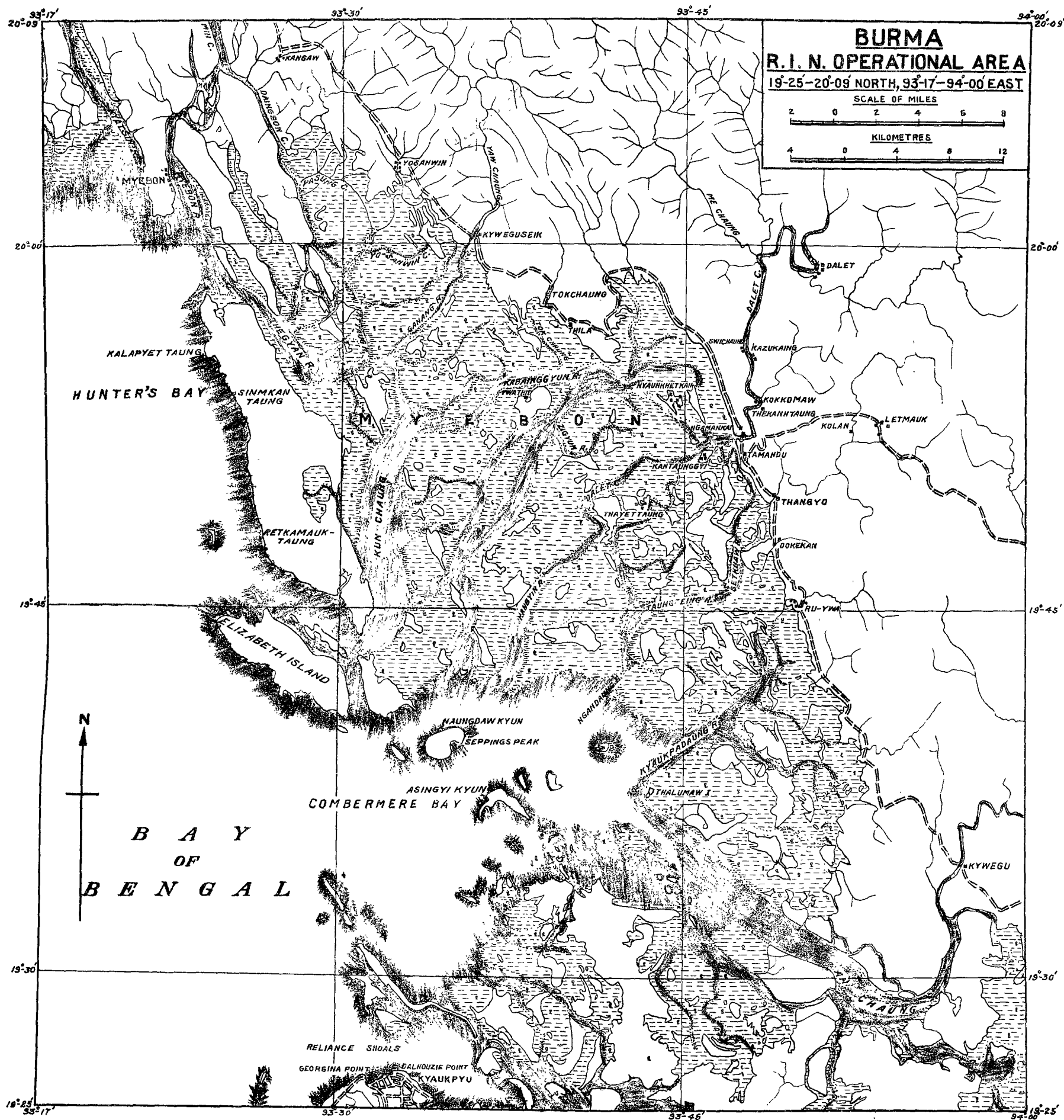
Assault on Myebon

On her return to Akyab H.M.I.S. *Narbada* had been informed that it was intended to assault Myebon. The operation was to be under the joint command of a Naval Assault Commander (Captain M.H. St. L. Nott., R.I.N.); an Army Assault Commander, (Brigadier Campbell Hardy, D.S.O., R.M.) and an Air Assault Commander Squadron (Leader D.T. Lees, R.A.F.).

Brigadier Campbell Hardy and Sqd/Ldr Lees embarked at 1800, and the *Narbada* with M.L. 854 sailed for Frederick Island, anchoring about $1\frac{1}{2}$ miles west of the Island at 2245 on the 8th. There was no chart of the Myebon river or its approaches north of Frederick Island. At 0600 the three assault commanders boarded M.L. 854. The channel towards Myebon was sounded by echosounders, and four danbuoys were laid to mark the best water. From this preliminary survey it was evident that it would be possible to bring the sloops in to about 8,000 yards from Myebon Peninsula, though this would involve the crossing of a long bar by night with only 13 feet of water over it.

Reconnaissance

M.L. 854 then stood in towards the Peninsula to examine the beaches. She proceeded within 300 yards of Charlie and Baker beaches, and had a clear view of the obstructions on the former beach, which consisted of a length of about 400 yards of large wooden stakes, about 10 inches in diameter and 15 feet high, and set 8 to 10 feet apart. After this examination M.L. 854 turned and proceeded down river, when the Japanese troops suddenly opened accurate 20-mm and machine-gun fire on her. The first shell struck the wheelhouse scuttle, passing through the wheelhouse and out the other side, a second passed through the engine-room and several



others hit the ship. M.L. 854 returned the fire with all her weapons, and apart from two injured by slight splinters, she sustained no casualties.

While the *Narbada* was returning to Akyab a formation of eight Japanese Zeros was sighted at 8,000 feet, approaching along the coast. It was at first thought that they were to attack the *Narbada*, but it soon became apparent that they were heading for Akyab. A warning was at once transmitted, with the result that ships there were ready to receive the Zeros on arrival. The *Narbada* opened fire with four-inch guns, but no hits were claimed.

The *Narbada* reached Akyab on the afternoon of the 9th, and early next morning a single Japanese aircraft flew low over the ship and dropped bombs on the Landing Craft base in Satyoga Creek, causing some casualties. One craft of the 41st L.C.M. Flotilla was straddled by a stick of bombs, several ratings being killed and two officers wounded.

Plan of the Assault

The planning of the assault on Myebon was now being undertaken and it was decided that the only beach suitable for the assault was Charlie, as the other beaches had neither sufficient exits nor suitable terrain to establish beachheads. As there was an extensive mud flat off this beach, it was necessary for the assault to be made at, or just before, high water.

Final briefing took place on board the *Narbada* at 2000 on the 10th, and whole of the 11th was spent in loading. The 3rd Commando Brigade Headquarters, No. 42 Commando and No. 6 Mobile Surgical Unit (comprising 573 officers and men) were embarked in the *Narbada*, No. 5 Commando (about 450 men) in the *Jumna*, No. 44 Commando in 4 minesweepers, No. 1 Commando into L.C.Is, and tanks, vehicles, guns, bulldozers, and stores in Tank Landing Craft and Landing Craft Mechanized.

H-hour was 0830 on 12 January, and on that day the *Narbada* and the *Jumna* proceeded up channel to their bombarding positions, and H.D.M.L. 1248 carried out a survey of the inner beaches inner harbour which proved invaluable.

The Convoy Sets Out

The convoy formed up at Akyab at 1700 on the 11th, consisted of M.L. 830 as navigational leader; L.C.Ms 1-12, each towing one L.C.A.; B.Y.M.S. 2204 and 2148 each towing 3 L.C.As. L.C.I. (L)s 286, 265, and 287 each towing one L.C.S. (M); L.C.Ts 2320,

2444, 2435 and 2361 each towing one L.C.P.; L.C.T. 2450, and M.M.S. 200 and 201. The convoy had a safe passage and was sighted from the *Narbada* anchored at the release position, at 0530 on 12 January.

Arrangements for disembarking troops into L.C.As and L.C.Ms from the two sloops worked well, and all troops were out of ships and into their craft, within 23 minutes after the first craft came alongside.

A Daring Operation

On the previous night a clever and daring operation had been carried out by M.L. 854. With a view to destroy beach obstacles three canoes were launched from this M.L. at low water at 0243 on the morning of the 12th. The canoes were paddled towards the wooden stakes on Charlie Beach. 25 two-pounder charges were connected to the stakes at mud level, in 3 ring mains of cortex; each ring main was primed with two delay pencils of six hours duration and initiated at 0001. The canoes then returned to the M.L., which remained close inshore till 0630, when she reported that detonation had occurred, and that about 25 stakes had been destroyed.

The Army Goes Ashore

The first assault wave left the *Narbada* at 0720 and touched down exactly at 0830 and the second wave with Brigadier Hardy followed closely. No difficulty was experienced in passing through the gap in the stakes but shortly after deployment the craft came under fire, which was returned by supporting M.Ls and L.C.S. (M)s. 2 L.C.As, 1 L.C.P. and 1 L.C.O.C.U. were hit and suffered casualties.

The first wave quickly overcame opposition close to and on the beaches. Two casualties occurred due to the mines laid on the beach, and among the earlier casualties by mine was Lt. R.V. Kettle, R.I.N.V.R., the principal Beachmaster. The L.C.Ts forming the second wave came in to land at H+15, and an attempt was made to put them ashore on Charlie Beach. The first tank ashore became entirely bogged. Commander R.D. Hughes, R.N. then landed Brigadier Hardy, and himself led L.C.Ts 2420, 2361 and 2444 to Dog Beach, but landings proved impossible. The L.C.Ts returned to the *Narbada*, and after consultation it was decided to try Baker Beach. While this was going on, the third and fourth waves were successfully landed at Charlie Beach between 0900 and 0945. The ferry service then began to land No. 1 Commando from L.C.I.(L).

Landing the Tanks

Further attempts were being made to land the tanks. A tank corps officer was contacted, and arranged the disembarkation of 40 sappers and necessary gear from one of the L.C.Ts for the construction of a beach roadway on Baker Beach. During this operation six motor launches engaged Japanese forces who were firing from the east and west banks, and H.M.I.S. *Narbada* was taken into the Myebon river in support as far as the pier. It was an anxious passage, as the depth for a long way was 12 feet 10 inches, and the *Narbada's* draft was 12 feet 6 inches.

At Baker Beach, a beach roadway was constructed in a remarkably short time and between 1320 and 1352 one tank and one bulldozer were landed from L.C.T. 2420. L.C.T. 2361 was then brought in. She unloaded her first tank but this toppled over as it emerged. At this crisis the Japanese opened fire on Baker Beach with a battery of 75-mm guns. The first round fell over, but they quickly established the range, and the commanding officer, H.M.I.S. *Narbada* signalled the L.C.T. to withdraw. As she left the beach one 75-mm round fell 20 feet over and the next 20 feet short, but she got clear with her remaining valuable cargo of tanks. In the meantime the Sappers and Tank Corps had righted the tank which had toppled over, and got it up under cover. The two tanks landed at Baker Beach were soon in action and proved most useful.

All loaded landing craft were now directed to Easy Beach. L.C.T. 2444 was instructed to swim out his Dukws (amphibious landing craft) and these were sent to Easy Beach.

While the attempt to land the tanks on Baker Beach was in progress, the *Narbada* had been engaging the first Japanese machine-guns which were sited in the area of Chaunggyi and were firing across the river, and later the 75-mm battery which had fired on the L.C.T. As soon as the Japanese realised that the attempt to land the tanks at Baker Beach had been abandoned they shifted the target to the *Narbada*. The fire was not very accurate, the first four rounds being about 300 yards over. Unfortunately one of these hit M.L. 831 and put her out of action.

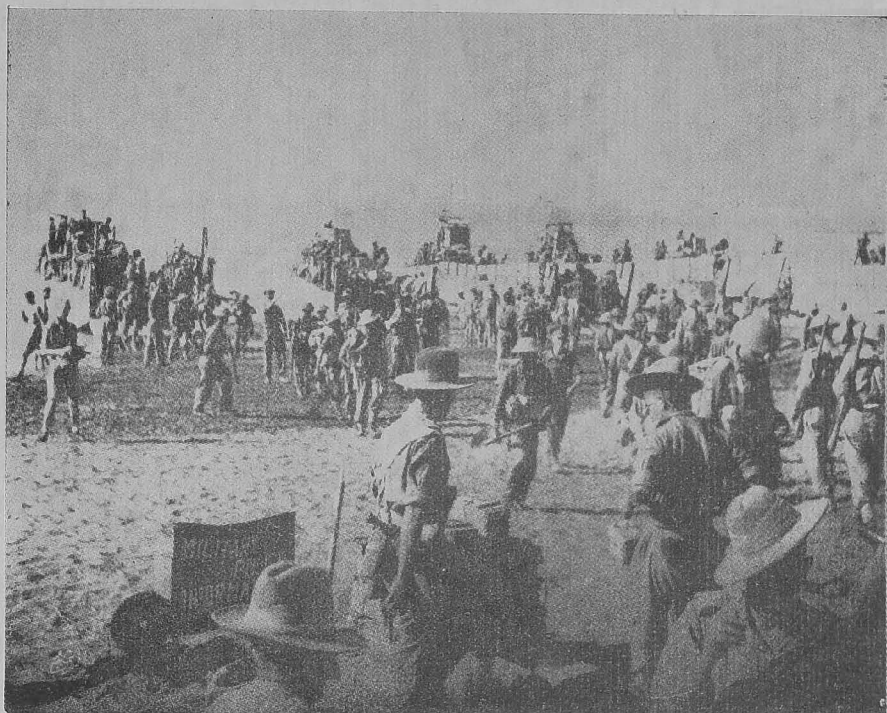
When all craft had withdrawn from the river, there was nothing to be gained by remaining, so the *Narbada* was taken out of range and settled down to an area short of all the Japanese guns. The tanks were during this time successfully landed on Easy Beach, and at about 1600 landing of stores was commenced. This was completed by night fall. The following morning, the 74th Indian Infantry Brigade arrived under the order of the Naval Assault Force Com-

mander Arakan (Commander Nichol, R.N.) and Brigadier Hurst, and they landed at Easy Beach at 0730.

In all, on D day and D+1, naval forces landed 6,635 personnel, 41 vehicles, 71 animals and 325 tons of stores, and in the 27 days following, the build-up came to a further 17,050 personnel, 452 vehicles, 153 animals, and 4,200 tons of stores. H.M.I. ships *Jumna* and *Narbada* were kept extremely busy bombarding bunkers and other positions throughout the 12th and 13th. At 1015 on the 13th, 8 Japanese bombers (Oscars) were sighted by the *Narbada* and *Jumna* and soon they attacked the ships. Most of the bombs fell quite close, the former ship having two within 50 feet. The *Jumna* shot down one bomber and the *Narbada* bagged two. Later the same day the *Jumna* sailed for Akyab towing M.L. 831.

Bombardment and Reconnaissance

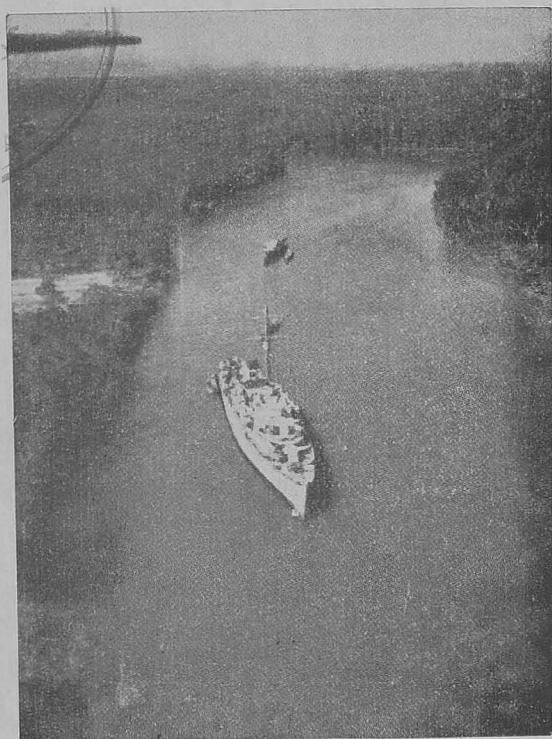
After the departure of the *Jumna*, the *Narbada* remained in the Myebon area and between 14 and 20 January carried out 14 bombardments of Japanese guns and defended positions firing in all 1,151 rounds. On 17 January, reconnaissances were carried out of the Thegyan and Ganang rivers, and on the 18th the Monthinat-taung and Yosanwin rivers, and Daingbon Chaung and other Chaungs were surveyed and buoyed to ascertain route for landing craft and M.Ls for an assault on the Kangaw area, and also to see how far sloops could support such an assault. It was found that sufficient water for sloops existed as far as Pasung Chaung.



During the assault on Myebon 74th Indian Brigade lands from L.C.Ts to support the Commandos



With loud hailer and Aldis lamps R.I.N. Beach Commandos direct traffic at Myebon



Moored to the mangroves H.M.I.S.
Narbada trains her guns on
 the enemy's coastal supply road



The Kangaw beach-head

CHAPTER XIV

Burma Operations (Contd.)

Simultaneously with the landing at Myebon, there was an all-out offensive down the Kaladan valley. The waterways east of the Myebon peninsula were completely blocked by Arakan Coastal Forces, whose motor launches had many exciting night encounters with the Japanese motor launches carrying goods, ammunition and oil though the chaungs to the forward troops comprising nearly five battalions. Meanwhile the *Narbada* and *Jumna* were intermittently shelling road transport and other supply targets. In a period of nine days (13 to 21 January) they fired 2,548 rounds from their four-inch guns. It was then decided to make a further landing on the edge of the Daingbon Chaung, close to the township of Kangaw. The Japanese were known to have a whole brigade defending this important staging post on their supply route, and the biggest concentration of artillery ever assembled in Burma. From these nearly 800 74-mm shells were lodged in the beachhead area during the assault. Hotly contested fighting ensued, as the Commandos and Indian troops stormed Hill 170. Between this hill and the beach, on one day alone, 340 Japanese dead were picked up from an area not much bigger than a football field. But Hill 170 was finally taken and the Japanese brigade was practically annihilated. R.I.N. Beach Commandos did a grand job under heavy fire on this perilously small beachhead. The support of Naval guns proved a factor of prime importance. In the week following the Kangaw assault, the *Narbada* and *Jumna* fired 3,173 four-inch shells, and additional fire support was provided by other craft.

Assault

At 1700 on 21 January H.M.I.S. *Narbada* embarked No. 44 Commando, the Mobile Surgical Unit and 100 porters—total of nearly 700 troops. Other troops were embarked in Landing Craft Infantry (Large) and British Yard Sweepers. At 0600 next day, the *Narbada* followed by these craft proceeded up the Thegyan and Mothinattaung rivers to the release position, the passage involving the crossing of a bar of 13 feet with only 6 inches under the ship. The troops were disembarked into landing craft at 1000, 500 troops being disembarked from the *Narbada* in 23 minutes. A

landing was effected without opposition, but shortly afterwards hostile guns proved troublesome.

At 1230 the *Narbada* proceeded up the Chaung to her initial bombarding position and 137 rounds were fired at various targets in support of the army. The *Jumna*, which had arrived back at Myebon on the 18th, also participated in the firing from an anchorage in the Myebon river.

Between 23 and 26 January, 44 bombardments of Japanese guns and defended positions and road lines of communication and focal points, were carried out, 1,584 rounds being fired. The *Narbada* shifted berth three times during this period, taking up positions in the Pasung Chaung and in Daingbon Chaung, as necessary. In the Pasung Chaung the ship was secured to mangroves aft.

The *Narbada* was relieved by the *Jumna* on the 26th. On the morning of the 27th the Commander-in-Chief East Indies, Admiral Sir Arthur Power, arrived at Myebon in H.M.S. *Nepal*, and visited *Narbada*. Late on the night of the 27th the ship proceeded to Chittagong where she arrived on 28 January.

M.Ls at Kangaw

The motor launches played their part in the Kangaw-Myebon Chaung warfare. The 56th Flotilla had returned from refit, at Madras, and it was to these waters that it proceeded first. The motor launches arrived on the evening of 21 January, and were placed under the orders of the Naval Commander Force 64 in the *Narbada*. Elements of the 49th and 36th Flotillas were also present. During the actual landing at Kangaw, the landing craft were led in by M.L. 844, which then took up position at the northern end of the beachhead, the southern end being occupied by M.L. 843. In the afternoon, when the Japanese began shelling the beachhead heavily, both motor launches suffered a number of near misses and M.L. 843 sustained casualties. Meanwhile all available motor launches maintained patrols at various points to prevent interference by Japanese craft, and to cut off their escape. The duties of headquarters ship were undertaken by M.L. 892, and excellent communications were maintained throughout.

On the night of 24-25 January, control duties were directed from M.L. 390. 'V' Force Intelligence had obtained and passed on valuable information concerning the route followed by Japanese water transport, and M.Ls 412 and 843 were placed in Ysamwin Chaung, with M.Ls 413 and 849 at the south-east end of Tek Chaung, thus blocking the route. Nothing occurred during the night,

but on the 26th, M.Ls 412 and 843 made extensive explorations, and arranged with the local inhabitants for their own intelligence service. It was learnt that a number of hostile landing barges were hidden near Ysamwin village. During the afternoon, this area was heavily bombarded by the motor launches, but the results could not, unfortunately, be observed.

During the night of 26/27 January, M.Ls 413 and 849, intercepted two landing craft proceeding from north to south down Tek Chaung. The Japanese appeared to be full of confidence and were chattering in loud tones as they came down stream. The motor launches engaged them with gun fire and hits were registered, but owing to smoke it was not possible to see whether they had been sunk. As, however, no trace of the landing craft was subsequently found, it was probable that they were sunk.

On the morning of 27 January orders were received for the 56th M.L. Flotilla to proceed to Kyaukpyu and join the 55th Motor Launch Flotilla for the Ramree blockade.

Americans Take a Share

During the second half of January, the motor launches had been busy again. On the 18th, M.Ls 438 and 441 embarked a party of the American Maritime Unit, and sailed with the intention of landing on Thalunew point.

The unit proceeded south round Baronga Point, and past Satellite Island, then through the centre of the channel between Sepings Peak and Achargwaine Island. This area was studded with rocks, and at a later date was found to be heavily mined. The landing position was approached from west, and at 2146 just as the motor launches were preparing to disembark the American party, a vivid flash from the shore was seen, and a heavy calibre shell exploded near M.L. 438. This was followed by four or five further salvos and one star shell, all of which were good for line, but over by some 1,000 yards (except the star shell, which fortunately fell short). The motor launches withdrew with all speed followed by further salvos which passed harmlessly overhead. As no suitable alternative landing position was available, the operation was abandoned, and the force returned to Akyab.

Assault on Kyaukpyu (Ramree Island)

The assault on Kyaukpyu was timed to take place at 0930 on 21 January at the same time as the *Narbada* and the *Jumna* with the Garhwal Rifles embarked were attacking Kangaw. A week

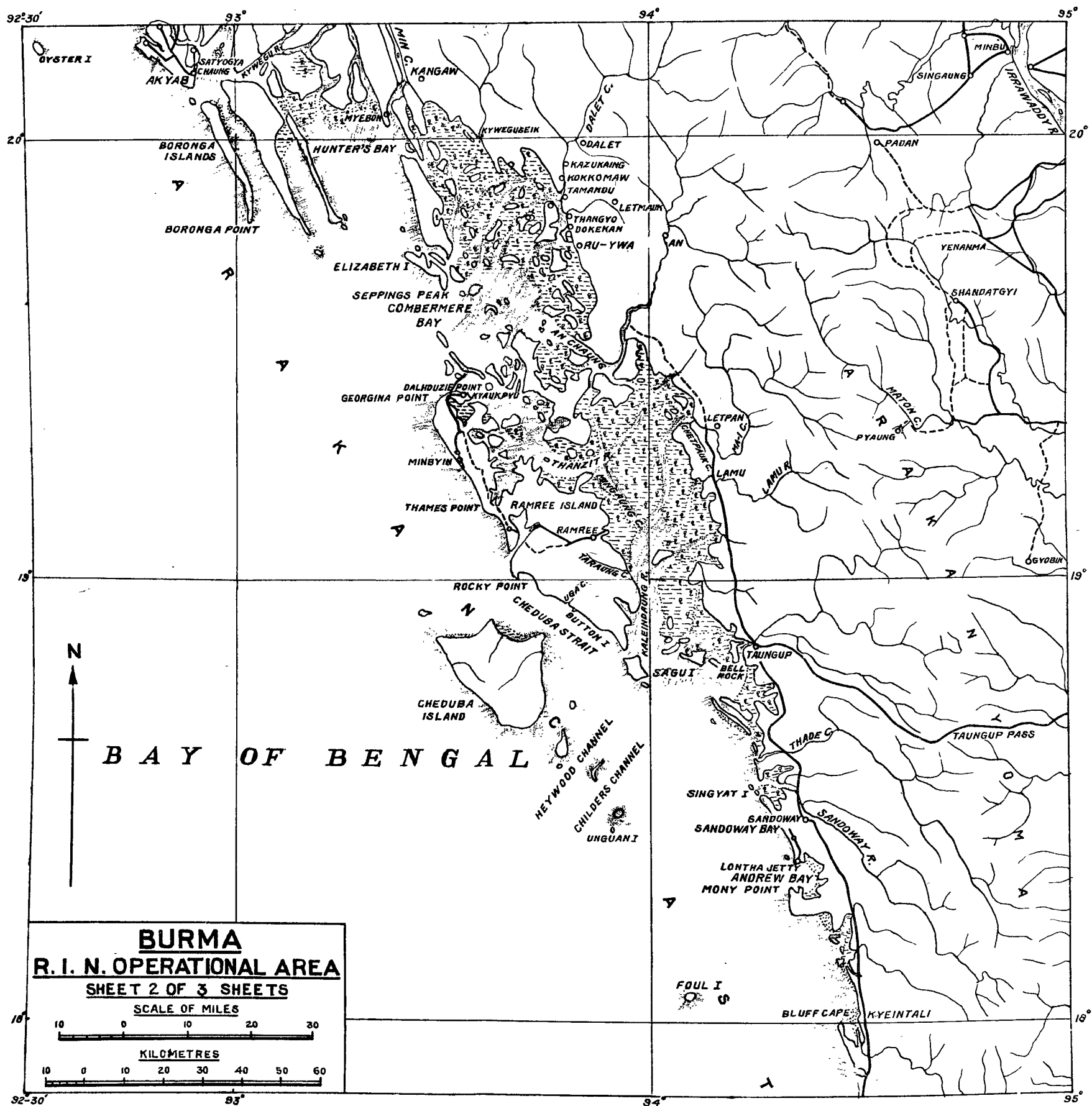
previously on 14 January Lt. Cdr T.H.L. Macdonald, D.S.C., R.I.N.V.R. in M.L. 440 with M.L. 447 in company embarked a Special Boat Section under the command of Major Livingstone, and proceeded from Akyab south to Katherine Bluff, which bounds Kyaukpyu harbour on the northern side. The party were landed successfully, and for four successive nights the two M.Ls returned to Kyaukpyu to wait at a predetermined rendezvous for their return. On the 17th night, Major Livingstone returned safely, having carried out a complete reconnaissance of Kyaukpyu inner harbour.

On the evening of the 20th, M.Ls 440, 438, 476, 477, 474 and 441 proceeded to the convoy assembly position outside Akyab harbour off Savage Island. On leaving the harbour, considerable enthusiasm was evidenced when the battleship H.M.S. *Queen Elizabeth*, appeared silhouetted against the sunset. The convoy was a formidable sight; landing craft of every description had to be shepherded into position, and the convoy finally moved off after dark. Six landing Craft Assault at a time were towed in two lines by B.Y.M.S. (British Yard Mine Sweeper) and one Landing Craft Personnel was attached to each Landing Craft Mechanized. Considerable difficulty was experienced in keeping the landing craft on the right course, and the motor launches spent the whole night chasing lost ships and stragglers. At dawn, however, the convoy was in reasonable shape, having been joined during the night by a number of troop transports, the cruiser H.M.S. *Phoebe*, the destroyers H.M. Ships *Pathfinder* and *Rapid*, H.M.I. Sloop *Kistna* and H.M.I. Ships *Konkan* and *Kathiawar*.

By 0830 two columns of assault craft had formed up. The starboard column was led by M.L. 440 with M.Ls 474 and 476 in support, and the port column by M.L. 438, supported by 477 and 441.

A tremendous bombardment, considered to be the most ambitious assault, ensued as the force steamed towards the selected beach-head between Georgina point and Dalhousie point, 15" shells from the *Queen Elizabeth* screamed overhead, supported by the lesser armament of the *Phoebe*, the Destroyers, and of the *Kistna*. The *Kistna* discharged 857 4-inch shells between breakfast-time and midday. At 0915 with the selected beach still a mile distant, heavy bombers attacked the Japanese defences, followed by fighters who strafed Japanese trenches and beach obstructions.

At 0930, the motor launches in each column deployed to starboard and port, ready to engage any targets which might be observed, while the 64 landing craft roared on to the beaches; troops



deployed in every direction, the Lincolns first, and then the men of a Punjab Battalion. After the beaches had been secured, M.Ls 438, 441 and 447 carried out a sweep of the inner harbour while M.Ls 440, 474 and 476 anchored in company with M.L. 891 off the beachhead, awaiting further orders.

At 1100 a Landing Craft Assault approaching the beach and carrying 32 men of a Battery Headquarters, suddenly blew up in the vicinity of the motor launches and disappeared in clouds of debris. This was the first indication that the harbour was mined. The motor launches immediately proceeded to pick up survivors, but only seven were found, and later transferred them to H.M.S. *Rapid*.

At this stage, M.Ls 474, 476 and 891 were lying alongside the *Rapid*. M.L. 891 came out astern, and just as she cleared the destroyer, a great explosion took place, and 891 disappeared in a vivid cloud of flaming smoke. M.Ls 474, 476 and 477 went at once to her assistance but owing to the flames could not get near her sufficiently. A number of survivors were seen clinging to the keel of the M.L. and these men were taken off by a motor-boat from the *Rapid*. Fourteen out of the crew of seventeen were picked up unhurt.

After the loss of these two craft, the force withdrew till the area had been swept, and the motor launches anchored near F.T. 14 in the outer harbour.

The build-up, after the harbour had been cleared of mines, went on steadily, and Landing Craft Mechanized worked non-stop to unload transport and stores from the big transports. During the night following the assault, a Japanese plane produced a fireworks display from the ships, but no bombs were dropped. H.M.I.S. *Kistna* and other warships were still at Kyaukpyu, responding to periodic calls by the army for the bombardment of specific positions ashore.

After three days, all R.I.N. Landing Craft moved into a creek behind Kyaukpyu harbour where a landing craft base had been established. It was not very comfortable, but it enabled, weary crews to have a break ashore, and repairs to be done.

After the harbour had been completely occupied, night anti-submarine patrols were carried out by the *Kistna* and the *Flamingo* to seaward of the merchant shipping.

Cheduba Island Assault and Ramree Island Blockade

26 January 1945 was fixed as D-Day and 0845 as H-Hour.

The Japanese had been completely misled by the Allies regarding the assault on Ramree island. By a series of preliminary bom-

bardments and beach reconnaissance, the Japanese had been led into thinking that the Allies would probably land on the west coast. There the Japanese had concentrated their defences, relying on a minefield to deter the Allies from making the assault closer to Kyaukpyu. This minefield was cleared by the Royal Indian Navy minesweepers. Our troops pushed on down the island's west coast supported by naval bombardment.

General Christison was anxious to occupy Cheduba island at an early date, but did not wish to commit his troops to another assault when they were fully engaged on Ramree Island. Royal Marines from the battleship *Queen Elizabeth* and from cruisers of the East Indies Fleet were landed near Scarle Point, on the northern shore of Cheduba Island, five days after the Kyaukpyu assault.

The landing was preceded by a cruiser-and-destroyer bombardment, ships taking part included the cruisers *Newcastle*, *Nigeria* and the destroyers *Nepal* (wearing the flag of Admiral Power), *Norman*, *Rapid*, *Pathfinder* and *Paladin*. The landing craft were escorted to the assault beach by motor launches of the Burma Navy. Ten minutes before the first wave touched down, Hellcats from the escort Carrier *Ameer* strafed the beach. The landing was accomplished without difficulty and the Royal Marines pressed on to occupy the whole island, whose area was roughly 150 square miles. At the end of January they were relieved by an Indian battalion.

Many Royal Indian Navy Landing Craft Assault took part in the capture of Cheduba Island and some Landing Craft Mechanized landed at points down the west coast of the island. Lieut. S. J. Brander R.I.N.V.R. and two L.C.Ms captured Sagu island in a private expedition. When a day or two later, a carefully planned small-scale assault was carried out, the assault troops were somewhat chagrined to find Lt. Brander and his men firmly in occupation and at that moment searching the beach for a suitable camping site.

Blockade of Ramree

As the army pushed south on Ramree Island, the Japanese defenders were slowly and relentlessly driven into the mangroves, and the blockade of the island began. Destroyers, motor launches and landing craft assault, carrying Gurkha Bren-gunners, patrolled the Thanzit river. They lay under cover of mangrove clusters at night, and caught the escaping Japanese by listening to their movements. Their watchfulness was rewarded on many occasions by the arrival of Japanese soldiers floating on logs, and parties trying to find their way over swampy ground on foot. On one occasion, a

large party was caught scrambling out on a raft they had just built. The sounds of tree felling reached a Landing Craft Assault, which brought the guns of a M.L. on to the target, and almost every man of a party of 50 Japanese was killed. The first motor launch patrol in the Thanzit river was carried out on the night of 24 January by Motor Launches 476 and 474. The river was in the main uncharted, but the patrol penetrated some 27 miles upstream. No opposition was encountered until opposite Kalebon Bluff, at which point the channel ran within 600 yards of the shore. Here the Japanese had established a strong point with a 25-pounder, several mortars and machine guns. A lively engagement took place, as the motor launches raced past at high speed. No movement, however, appeared to be taking place on the river, and the unit withdrew at dawn without difficulty.

Deception

On the 24th also, M.Ls 440 and 441, embarked a deception party to carry out an operation in Yinbawk Chaung, half-way down the west coast of the island, where the Japanese were putting up strong resistance. The deception party was to lay booby traps and fire works behind the Japanese lines to cause consternation after the landing party had withdrawn. A Landing Craft Personnel was towed by Motor Launch 441 to carry out the landing.

By midnight the unit was within five miles of Rocky Point, where H.M.S. *Flamingo* was anchored for bombardment duty. When some two miles off Rocky Point, the boats were heavily engaged by a Japanese 75-mm gun. M.L. 440 plotted the position of this battery, and transmitted it to *Flamings*. M.L. 440 thereafter steamed towards Rocky Point again, and was successful in enticing the battery into opening fire once more. The *Flamingo* thereupon opened up, and 40 rounds of 4-inch shells completely silenced the Japanese gun, which was later captured in a damaged condition.

As surprise had then been lost, it was decided that no landing should be made. Thereafter the M.Ls re-formed, and returned to Kyaukpyu.

The following night, M.Ls 476 and 474 carried out the Thanzit patrol, and another exchange took place with the Japanese on Kalebon Bluff. On the 26th, M.Ls 440 and 441 carried out this patrol, and penetrated as far as 30 miles up the river. M.L. 440 had the misfortune to hit a submerged rock, damaging both propellers, and was towed back to base at dawn by M.L. 441.

Assisting in this blockade were the *Kistna* and the *Flamingo*, ready to tackle targets out of range of the motor launches. On the

26th, the *Kistna* was at anchor in Ramree Wah Creek, engaging targets in support of the army, and on the 28th was employed on similar duties off Thames Point. At this period, the retreating Japanese forces, in spite of the prolonged operations by sloops and motor launches to cut their line of retreat in the Kangaw-Myebon area, were still managing to infiltrate round the hills behind Kangaw down to Combermere Bay, and then by devious inland waterways to reach Letpan. There was a danger that a strong force might be able by this means to occupy the mainland opposite Ramree, and make the water in between untenable. A patrol in Combermere Bay was therefore instituted, and on the 29th H.M.I.S. *Kistna* with M.L. 413 and M.L. 416 were in this area. The *Kistna* carried out a bombardment of Japanese battery positions ashore on Thalumaw Island from an anchorage off Maung Wane Island with M.L. 413 spotting, and other targets were engaged as the vessels left the bay.

Blockade Tightened

Late in January it was decided that the Ramree blockade should be intensified, and, as already related, the 56th M.L. Flotilla proceeded on the 27th to Kyaukpyu to join the 55th Flotilla on this job. The army had been pressing the Japanese south and east down Ramree Island; by 8 February, Ramree town was captured and the main remnants of the Japanese troops were squeezed into that part of the Island lying to the east of a line Ramree-Town-Sane, faced with the alternative of fighting or attempting to escape through the chaungs of mangrove swamps to the east. They chose the latter. To cut them off, it was decided to block all chaung exits from Taraung Chaung to the Paikseik Taungmaw river in the east and exits into the Mingaug Chaung and Paikseik Taungmaw river in the north-east.

The Ramree operations were Chaung warfare at its best. It is perhaps difficult to visualise this type of naval warfare. The rivers and chaungs were for the most part completely uncharted, and to reach some of the positions within range of shore targets, both in the Ramree and in the Kangaw-Myebon and Ruywa areas, sloops, Z-craft, and motor launches had to navigate up to 30 miles of these uncharted waters. The chaungs were creeks varying from 1,500 yards to 150 feet wide, generally bounded by high mangrove trees up to 50 feet in height. Firm banks and villages were an exception. The creeks were tortuous and often great difficulty was experienced in turning the sloops at some of the hairpin bends. The depth varied from 7 feet to 80 feet at low water, and usually

the narrower the chaung, the greater the depth. The creeks were tidal, the range being about 9 feet. They were studded with numerous shoals and pinnacle rocks which presented perpetual hazards. The Admiralty later described these chaung operations in an intelligence review as "unprecedented in the annals of Naval History", while Admiral Sir A. J. Power, K.C.B., C. B., R. N., then Commander-in-Chief Eastern Fleet, wrote of them:—"The Myebon, Kangaw and Ruywa operations afforded splendid opportunities for enterprise, resource, impromptu operations and close-range fighting. On each occasion the enemy was caught on the wrong foot and defeated. Sloops, destroyers, minesweepers, motor launches and landing craft manned by Royal Navy and Royal Indian Navy personnel took full advantage of the perfect weather for fighting and the unique opportunities for displaying good seamanship. They landed and supported our troops without any fuss, navigated uncharted waters with skill, and although in face of considerable hardships, especially in the minor landing craft, they never flagged".

Like the Thames

This unusual warfare produced a number of interesting incidents. The army inclined to the view that all parts of their maps which were coloured blue were navigable by H.M. Ships, and this was the subject of a somewhat bitter report from the Senior Officer, 56th M.L. Flotilla, who had been ordered to proceed up a tortuous chaung in the Ramree area for a conference with the local army commander. He referred to the chaung as follows:—"This waterway is considered more suitable for amphibious vehicles than for M.Ls". One Boat Officer in the Landing Craft Wing was surprised to find an Army Officer saying that the Daingbon Chaung was not unlike the Thames in some respects.

Dredgers' Union

Most of the ships ran aground at some period of the operations. On one such occasion, H.M.I.S. *Narbada*, observing a motor launch firmly embedded in the mud, enquired facetiously, "Are you a dredger?". The motor launch did not reply, but when a few days later the *Narbada* herself ran aground in the same waters, it was this M.Ls turn to pass by and to signal "Welcome to the Dredgers' Union."

Sagu Kyun Island

As it is not possible to describe all the incidents during the blockade only the important ones are recounted. As part of the blockade M.Ls 476 and 474 sailed with a combined landing force to Sagu Kyun Island. Capt E.T. Cooper R.N. was embarked in M.L.

476 as Senior Officer, Assault Group. Sagu Kyun was reached at 1000 on the 13th, and the landing was unopposed. Japanese guns had been reported, and H.M. destroyers *Norman* and *Raider* bombarded the position. At 2100 M.Ls 476 and 474 proceeded through Ramree gates to patrol the inner harbour. Nothing, however, was sighted during the night, and the Force withdrew at dawn to support a further landing on the southern tip of Ramree island. This landing was also accomplished without incident, and at dusk on 31 January the destroyers were withdrawn, together with most of the landing craft, leaving M.Ls 476 and 474 to carry out a further night patrol of Ramree harbour.

At 1820 just as the destroyers were disappearing over the horizon, the Japanese engaged the M.Ls with heavy guns from the shore. The Force immediately got under way, at the same time observing near misses on the few landing craft remaining.

Japanese fire ceased at 1905 and it was decided that to enter Ramree harbour through the narrows in the face of heavy gunfire was an undue hazard and the harbour was consequently entered by the eastern channel. Fire was again observed apparently directed at the M.Ls at 2255 but no fall of shot was observed, and the patrol continued anchoring by Ponca Island for the night. As nothing was seen during the hours of darkness the M.Ls withdrew at dawn to return to Kyaukpyu.

Other patrols were carried out through Combermere Bay as far as An Chaung, first by M.Ls 438 and 477, and subsequently by M.Ls 413 and 843.

The Illuminations

All boats of the 55th and 56th M.L. Flotillas were kept continuously on patrol, and were supported by H.M. Destroyers *Pathfinder* and *Eskimo* with H.M.S. *Flamingo* and sloops of the Royal Indian Navy. Landing Craft Assault, Landing Craft Mechanized and British Yard Mine Sweepers also took an active part, and it was a usual sight to see these vessels anchored at intervals of some three cables off from the Thanzit river to a point opposite the eastern end of Ramree Chaung. His Majesty's destroyers did notable service, especially the *Pathfinder*, who penetrated as far as the Paikseik Taungmaw river where she was damaged by bombing.

After the first fortnight a lull indicated that the Japanese had escaped, or had died in the mangrove swamps. At the time orders were received that every form of illumination should be used to light up the chaung at night. The results were fantastic. Lighting sets were removed from jeeps and supplied to motor launches and

landing craft, and destroyers' searchlights played constantly through the night hours.

477 Hit

On 7 February, M.L. 477 was anchored 50 yards from the east bank of the Paikseik Taungmaw river. Look-outs reported distant voices, but nothing was sighted until at 1405 a gun opened fire on the motor launch from the western bank from a range of approximately a thousand yards. No flash could be observed, and although engines were started immediately and anchor slipped, eight direct hits were sustained. Fortunately the Japanese were using armour-piercing 37-mm, which went right through the ship. At this moment the gun was located on the only piece of high land and was immediately engaged. M.L. 441 came in to assist, followed by M.L. 319, and the hostile gun was successfully quelled, M.L. 477 being able to return to base under her own power.

The Sloops Again

We may now turn to the story of the sloops, and to state briefly the position on land. The assault on the Kangaw area by the 3rd Commando Brigade on 21 January under the support of the *Narbada* and *Jumna* has already been described. The 51st Brigade was subsequently landed. The 74th Brigade advancing from Myebon continued its attack on the western side of the Kyaukgmaw river, and later carried out raids on the eastern bank to the north of Kangaw. The 82nd West African Division was pressing southward towards Kangaw from the direction of Hpontha. The Japanese fought hard in the Kangaw area carrying out repeated counter-attacks. They threw into the battle the largest concentration of artillery yet met by our troops in Burma, but by 3 February it was evident that they were commencing a general withdrawal southwards, and it was decided to use the sloops to bombard targets on their line of retreat.

The object of sloops' next operation, therefore, was the harassment of the Japanese line of communications between Kyweguseik and Tamandu and especially the ferry crossing on the Dalet Chaung.

The operation began on 5 February, and the bombarding force consisted of four sloops and two Z-craft—H.M.I.S. *Narbada*, H.M.I.S. *Kistna*, H.M.I.S. *Jumna*, H.M.S. *Flamingo*, the Z-craft *Enterprise*, and the Z-craft *Fighter*. The *Jumna* and the *Flamingo*, were not present at the start of the operation, and joined the Force on the 6 and 12 February respectively, while the *Kistna* left on the 10th. The four

sloops each carried six 4" guns, while the Z-craft were armed with four 25-pounders.

Fire Plan

The plan was for the Royal Air Force to carry out the maximum possible harassment of the Japanese line of communications by day and the naval forces to do likewise by night. The Royal Air Force effort consisted of bombing, strafing, and offensive reconnaissances. From 1200 to 1400 daily there was no R.A.F. activity so that the sloops and Z-craft might register with air observation post on new targets and re-register on old ones. The whole operation was controlled from the *Narbada*.

The *Narbada* and *Kistna* anchored at their bombarding positions on 5 February and commenced to engage a series of targets. The principal targets were in the area of Tamandu, where the Japanese were believed to have their garrison, the ferry crossing at map reference 8916, and the area between Kokkomaw and Thekanhtaung. Later, when the Japanese ceased using the ferries, fire was shifted to the crossing point between Swichaung and Kazaukaing. Other targets were the main roads between Tamandu, Shaukchon and Kolan, the road between Tamandu, Tangyo, Ruywa and Kyweguseik and also the Japanese Inland Water Transport base at Nyaungkhetkan. Counter-battery work was carried out against Japanese 75-mm batteries at Thila, Nyaungkhetkan Pagoda, and on hill feature 582 east of Tamandu. All these guns were very carefully concealed in deeproofed bunkers in thickly wooded hill country, and observation was very difficult. These were treated as secondary targets, and were only engaged when the guns proved troublesome, on which occasions they were effectively silenced, but not, so far as was known, destroyed.

Several engagements took place between sloops and batteries during the operations. On 12 February the *Jumna* and the *Flamingo* were engaged by guns at Thila. As the gun positions could not be detected, they were compelled to retire temporarily. The guns were afterwards silenced with the aid of air observation.

Kantaunggyi Village

On 15 February as the *Narbada* was leaving Thayettaung Creek for a new operation, information was received from the headman of Kantaunggyi of the arrival of 50 Japanese soldiers in his village. The village could not be engaged from the creek, hence the *Narbada* was taken to a position in the Kanbyin river from where a clear line of fire was obtained. The Japanese batteries on point 962, east of

Tamandu, opened fire on Landing Craft Support (Medium) 6, carrying the forward observer, as she came within 1,000 yards, but she pressed on and obtained shelter behind a mangrove island. The Japanese then shifted fire to the *Narbada*, who retired just out of range. This caused some slight delay, but the shoot on Kantaunggyi was successfully accomplished with the aid of the headman of the village in the L.C.S. (M), who pointed out the Japanese camp. After dealing with this position, the *Narbada* engaged the troublesome batteries whose position, had for the first time been accurately observed from the flash of their guns.

A total of 3,300 rounds was fired by the naval ships between 5 and 15 February, in addition to about 2,000 rounds fired by the 25-pounders in the Z-craft. The ships were involved in continuous operations for eleven days and were operating throughout the period within a few thousand yards (sometimes much less) of strongly held Japanese positions and batteries, in waters in which their craft were known to be operating, and which lent themselves to unorthodox form of attacks such as underwater attacks and assaults from the banks with mortars and grenades.

Results

The results of the bombardment were difficult to assess, but from information provided by the local population, it appeared that the Japanese forces retreating from Kangaw and Kyweguseik were held up on the northern bank of the Dalet Chaung for many days. Apparently the Japanese were led to believe that an assault would develop in the Dalet Chaung area. In actual fact the next attack was made well to the south in the Ruywa area and was unopposed; the tying of the Japanese forces to the Tamandu area could only be attributed to the bombardment. The evacuation of the villages by the local inhabitants, consequent on the bombardment, depleted Japanese supply of food, and drove them to desperate measures to obtain it. They had been relying previously on rice stocks held by the villagers during the retreat.

During the operations frequent survey expeditions were carried out by M.Ls with echo sounders, and by the survey yacht *Nguya*.

Ruywa Assault

D-Day was fixed for 16 February. 1030 was to be H-Hour.

With the mopping-up operations in the Myebon-Kangaw area being practically complete, the next step was to harass the Japanese withdrawal southward towards Dalet (headquarters of the Japanese 54th Division), Tamandu and An. Accordingly a naval

bombardment force was assembled on the flank of the their line of retreat. This force included the *Narbada*, the *Kistna*, the *Jumna*, and the *Flamingo*, all armed with six 4-inch guns. To reach their bombardment positions the ships had to navigate 30 miles of uncharted chaungs.

The bombardment went on day and night from 5 February to 15 February. Most of the country was densely wooded, with precipitous mountains, cut by deep valleys. The remainder was mostly mangrove swamp. The Japanese were most skilful in concealing their guns and in moving them from place to place. But forward observation officers kept the ships informed of the changing location of their various targets.

Ruywa, 20 miles south of Dalet, was once again the area of operations for the landing craft of the Royal Indian Navy. This young branch of the service landed the 25th Indian Division troops dead on schedule at Ruywa and became also their main supply link. The Naval Assault Force assembled in full daylight inside a chaung, a considerable distance from the open sea. Led by Arakan Coastal Force motor launches, the minor landing craft—mainly Royal Indian Navy—proceeded further upstream and were diverted unescorted into a smaller chaung continuing for another hour up a narrow winding channel before unleashing the first wave of troops into thick jungle. By the time the third wave had landed, the jungle had been cleared. This technique of amphibious landings up small creeks amidst thick jungle was far removed from the traditional conception of sand beaches and heavy naval units lying just off-shore. Nor was this the only hazard our men were overcoming in those landings. At Ruywa the shallowness of the creeks was an additional problem and rendered the beach usable only at certain stages of the tide. Yet, the Naval Assault Force was able to fulfil all its assignments, and by the end of the first day, the 25th Indian Division troops had reached their initial objectives exactly as planned. The rapid succession of landings on the Arakan coast surprised the Japanese forces and at Ruywa once more tactical surprise was achieved.

On 16 February the assault operation was carried out. The initial object was to land the 53rd Brigade to secure a beachhead through which the 2nd West African Brigade and the 74th Indian Infantry Brigade would be able to advance on An and Tamandu, respectively. The bombarding force was to support the landing of the 53rd Indian Infantry Brigade, and later, after the initial assault, to support the operations of the two other Brigades, and also the

advance by the 5th Nigerian Rifles from Kyweguseik Ngamankai Ywat Hit.

The *Jumna* left the bombardment force on 21 January and was relieved by the *Cauvery* on the 24th. Prior to the operation, a survey was conducted in M.L. 856 of the Ngandaung, Taungseing, and Kyaukpadaung rivers, and the various chaungs leading off from, and connecting, these rivers.

The pre-arranged task consisted of a fire plan on the Thangyo-Donkekan-Ruywa area, in which the three sloops took part in collaboration with army guns which had been landed on an island nearby. The targets chosen were the likely concentration areas of Japanese forces, and the fire plan was designed to prevent their movements towards the beach area.

The actual landing was entirely unopposed and was carried out most successfully. After the assault, the principal tasks were counter-battery work whenever the Japanese opened fire on our troops or craft, fire plans in support of military attacks, fire on hostile defended positions on call by forward bombardment observers, and night harassing fire on Japanese guns and positions which had been registered by air observation by day. Control of the bombardment was in the hands of the *Narbada* with the Senior Bombardment Liaison Officer embarked. Some of the targets engaged were at a considerable height, and out of sight beyond intermediate crests. Bombardment observers found great difficulty in finding good observation posts.

Quick Work

On 21 February an air observer spotted a Japanese gun, and called for fire. Fire was opened in 60 seconds on this target which had not previously been registered, and the shoot was completed in 5½ minutes in the course of which 26 of the 32 rounds fired fell in the target area. The gun was not heard of again. This was possible due to the R.I.N. sloops maintaining direct radio telephonic communications with the observation planes which were operating from an air strip built the night before D-Day. This direct air-sea co-operation was made even closer by the fact that the senior ship of the squadron commanded by Captain M.H. St. L. Nott, O.B.E., R.I.N., was moored in a narrow chaung alongside the air strip.

A Dangerous Shoot

On another occasion the 3rd Gold Coast Regiment called for fire on a defended position on a hill 1,262 feet high at a range of 1,500 yards. For this bombardment our forward troops were sta-

tioned a thousand yards short of the position, a thousand yards beyond it and a thousand yards to the right of it in dense bamboo jungle. In spite of their close proximity to the target, the shoot was successfully carried out, and the Japanese were dislodged from their position, enabling the Africans to advance without opposition at this key point.

On the night of 19 February Capt. G. Robins, R.A. kept a watch on the road between Tamandu and Thangyo from a Landing Craft Support (Mechanized) lying close to the bank within a few yards of hostile territory. At about 0100 he heard transport moving along the road, several points on which had previously been registered. He called for fire on one of these and the first shell arrived at the precise moment required. The result was at least one ditched lorry, and much shouting and confusion. At a later date a Japanese Divisional Headquarters, and centre of communications in the Letmauk-Kolan area were engaged with the aid of air spotting at a range of 18,600 yards.

Narbada Damaged

On 22 February at 1830, fire was suddenly opened by Japanese 75-mm guns on the *Narbada* at anchor in the Setkhaw River. The ship was straddled with the fifth shot, and although by that time under way, was hit aft by the sixth round. The shell exploded in the depth charge stowage on the starboard quarter, splitting two depth charges completely in two. Fortunately they did not explode, a splendid testimony to the stable qualities of amatol. The steering gear also broke down temporarily due to a near miss. The only casualty was the coxswain of a D-tug lying alongside.

The *Narbada* immediately opened fire on the most likely Japanese guns which had been previously registered. It was, however, impossible to be certain which gun was firing, as no observation was available. The Japanese fire was extremely quick and accurate, and they secured several more straddles but no hits.

The Forward Observer Bombardment's Capture

On 4 March, the 74th Indian Infantry Brigade put in an attack from Thangyo which was intended to carry them to Tamandu. At 0945 the *Narbada* carried out a heavy bombardment of the Tamandu area, which the Forward Observer Bombardment observed from a distance of 500 yards. He then reported that in his opinion the village was deserted and was given permission to investigate. This was done, and he took with him a Midshipman, and four

Ratings of the *Narbada*. The party carried out a reconnaissance 200 yards inland when they were stopped by mines and Panzi stakes.

The 74th Indian Infantry Brigade meanwhile had been held up by the Japanese some three miles further south. The Brigadier 74th Indian Infantry Brigade, asked that the Landing Craft Assault to make a small arms demonstration north of Tamandu to make the Japanese think a party was being landed north of them. This was done, and was effective. It was entirely due to the reconnaissance carried out by the Forward Observer Bombardment and his party that the decision was made to press on to Tamandu that afternoon. At 1730, six hours after the initial landing by the Forward Observer Bombardment and his party, the leading elements of the 74th Brigade arrived, and the village was turned over to them. It was probably the first time in history that a Forward Observer Bombardment had "captured" a village.

The waters in which the sloops were operating were equally difficult to those in the Myebon and Ramree areas, and special noteworthy feats of navigation were the *Flamingo's* passage up the Hinkhonbauk river, and the *Cauvery's* night passage from the Kaibainggyun river to the Zigyun river.

Cauvery and Kistna

H.M.I.S. *Cauvery* during these days had been busy supporting the army, and between 1 and 6 February she maintained intermittent harassing fire on Japanese land positions and periodic registration shoots with aircraft spotting. H.M.I.S. *Kistna* had a gun duel with a 75-mm gun on Naungkhetkhan Island.

Landing of Guns

Mention was made earlier of the landing of army guns on an island in the Ruywa area. This job was carried out by a Royal Indian Navy Landing Craft Flotilla, assisted by Royal Marines, and two batteries of 25-pounders were put ashore. The landing point selected was nearly $2\frac{1}{2}$ miles up a circuitous chaung and was within a mile of a Japanese gun position. The guns were landed from ten craft in the space of six hours on a beachhead permitting only two craft at one time. Five hours later the same flotilla was standing by to take in the assault troops to the main beach at Ruywa.

The Supply Line

In a tent whose walls, tables and chairs were merely comouflaged tins of hard rations, the Paymaster supplied the Landing Craft

Wing in Ruywa. He followed the southward advance of the forward landing craft base from Myebon and set up office in the Ruywa area, five days after the initial landing there. Japanese artillery was shelling the clearing in which this front-line store was set up.

On to Taungup—The Letpan Assault

Having completed the mopping-up of Ramree Island, the 26th Indian Division then turned its attention to the mainland, for the push to Taungup to bring the Arakan campaign to a triumphant close. Six landing points were selected on the Ma-I Chaung, near the Letpan Ferry, 30 miles up the road from Taungup. The landings which were made with many minor and major landing craft, involved a 40-mile passage through twisting rivers and chaungs. The landing craft were supported by motor launches, minesweepers, the British destroyers *Roebuck* and *Eskimo* and R.I.N. sloops *Jumna* and *Cauvery*. The destroyer *Nubian* joined later, helping to provide fire support for the southward advance. The landing was unopposed, and although opposition grew, Taungup was entered on 4 April.

On 12 March, the *Narbada* was relieved by the *Jumna* and on that day the *Jumna* and *Cauvery* embarked some 400 troops of an assault force and proceeded to the Kaleindaung river to take part in operation "Turret". The position on the coast there was that they were established fairly firmly in the Arakan, on the mainland as far south as Ruywa, and on the islands of Ramree and Cheduba. Inland, the 25th Indian Division was advancing south along the axis of the road An-Hinywat-Lamu-Taungup, and the main problem was to prevent the main body of the Japanese forces from crossing the Ma-I Chaung and linking up with the garrison at Taungup, which from all reports was being rapidly and substantially reinforced at that time.

It was essential, if a stalemate was to be avoided, that Taungup be captured before the break of the monsoon. Its capture was important from a military point of view and also from a propaganda one. Taungup meant slightly more to most people outside Burma than names like Myebon, Kangaw, Ruywa, and Letpan, and it meant a great deal more to the Arakanese and the Burmans.

An operation was therefore planned to take place on 13 March 1945, to land the 4th Brigade Group in the vicinity of Pyinwan to establish a beachhead on both the banks of Ma-I Chaung. Forces taking part in the operation were Naval Force 'W one' (a composite assault force composed of elements from both the Royal

Navy and the Royal Indian Navy, with bombarding ships,) the 4th Indian Infantry Brigade, 6 squadrons of P 47s, 2 squadrons of Hurricanes, and a half squadron of Tac R Hurricanes.

Subsidiary Beaches

Before the main landing, however, two subsidiary beaches had to be secured. One, on the Singin Taung was for the landing of 25-pounders and 5.5" guns to deal with some Japanese 75-mm positions which had been reported opposite this beach. This position was to be assaulted at 2130 on 12 March by two companies of the 1st Battalion 18th Royal Garhwal Rifles, and the beach was to close down as soon as the main beachhead at Pyinwan had been secured.

The second subsidiary beach was to be established at the head of Chetpauk Chaung, also at 2130 on 12 March. The assaulting troops in this case were one company from the 2nd Battalion, 13th Frontier Force Rifles and one platoon from the Royal Garhwal Rifles. The purpose of the landing was to push through and secure point 1121 on the hill known as Ziban Taung, which directly overlooked main assault beach and was reported to house some Japanese guns. It was essential to secure this feature before dawn to provide a suitable observation post for the pre-assault naval and air bombardment on any Japanese positions in the Pyinwan and Letpan areas.

The main beachhead was to be established at Pyinwan, the assault going in at 0930 on 13 March. The landing was to be made by the 2nd Battalion Green Howards with two machine gun companies of the 12th Frontier Force Rifles Regiment in support. The original landing was to take place on the north bank, and a second bridge-head was to be secured later on the south bank.

Sindin Taung

The operation was mounted from Kyaukpyu and all embarkation of assault troops and loading of stores was completed by 1800 on the 12th. The assault force had been split up into six convoys, four sailing on the 12th into six convoys, four sailing on the 12th to reach lowering position at various times before dawn on the 13th, and two sailing between 0001 and 0030 on the 13th.

Shortly after dawn Royal Indian Navy sloops dropped anchor at their rendezvous and waited. Throughout the night landings were carried out around the Letpan area. One sloop blasted suspected positions. Ant-like streams of landing craft moved in and out of the Chaungs feeding the tributary attacks, while the main beach

under cover of airstrike, tanks were unloaded within an hour of the first wave going ashore. The R.I.N. Beach Commando with its Beachmaster regulated what might easily have become a major traffic jam. Explosives were used to dynamite fresh beaching strips, while the broad perimeter of paddy field flanked with trees was filling with transport and equipment.

The first convoy reached the lowering position at 2000 on the 12th, and the troops were embarked in the Landing Craft Assault immediately and went off to secure the beachhead on the Sindin Taung. The landing was made at high water with little trouble and no opposition, and by 0500 on the 13th, the beachhead was firmly established. Unfortunately, after the tide began to ebb, it was found that nothing could be landed on the beach for two hours on either side of high water, because the bank below high water mark was a mass of mud and nothing could pass through, even though "sandwiches" with a special thick bamboo soling had been specially made for this emergency. The guns were eventually landed during the next day and the beach finally closed down on the 14th.

"Stick-in-the-Mud"

The second convoy carrying troops to secure the beach-head at the top of Chetpauk Chaung arrived safely its release position. This beach was a somewhat different proposition to the one at Sindin Taung in that it was right up Chetpauk Chaung, which at the best of times was about 15 to 20 yards broad with mangrove banks. The beach selected was a small clearance in the mangrove about 50 yards long, with good firm paddy field behind it. It was overlooked, immediately on its left, by a small feature which was reported to be occupied by the Japanese. Owing to the darkness the first wave overshot the beach, and landed the troops into thick mangrove. The swamp extended to a depth of about 20 yards and it took the troops about twenty minutes to get across it.

The troops did their job and by early next morning had secured point 1121. The landing also was completely unopposed in spite of reports that the Japanese were in fair strength in the area. The original beach was established next morning and was worked till 0800 on the 14th when it closed down.

The remaining two assault convoys dropped anchor for the main assault at 0700 on 13 March. By this time the bombarding ships, the *Cauvery* and the *Jumna*, and the destroyers *Reobuck* and *Eskimo*, were in position and commenced their bombardment. Air support

was forthcoming from Thunderbolts of the U.S. Army Air Force, and inshore support was given by M.Ls 439, 477, 390 and 417. The assault wave left the ship at 0730 and the whole operation was carried through without opposition. During the first day the whole of the Brigade Group, with 200 tons of stores and 50 vehicles, was landed, and subsequently a further hundred tons of stores were taken off from a stores ship lying about 10 miles out and 27 vehicles were brought over from Kyaukpyu.

Since there was no opposition and things were going well a new beach-head was established half-a-mile further up the Ma-I Chaung, astride the Hinywat-Lemu road. This new beach gradually became the main one, as it was on the right-side of the chaung, and all other beaches were closed down. The operation had been completely successful, and from this time it was a matter of jumping from one chaung to another, always going south, until the capture of Taungup on 15 April, when the ultimate object of the operation was achieved.

Coastal Forces Depart

The Letpan combined operations were the last in which the Fairmile Flotillas took part. The 55th M.L. Flotilla returned to Chittagong three days later, after six month's continuous operation in Burmese waters, during which time some 340 single boat sorties were carried out.

The 56th M.L. Flotilla remained behind and carried out one further operation. On 30 March, M.Ls 412, 413, 417 and 844 together with four boats of the 36th M.L. Flotilla, made rendezvous with the *Roebuck* and the *Eskimo* in the vicinity of Gwa. The motor launches proceeded into Gwa Bay in line ahead, while the destroyers opened fire with starshell, and 4.7" guns. The motor launches took up the bombardment from close inshore. No results were ascertained, and there were no signs whatsoever of Japanese activity. At midnight on 31 March the Force returned to Akyab, and two days later the 56th M.L. Flotilla was ordered to return to Vizagapatam for refit.

Last Harbour Defence Motor Launches

The only coastal forces then remaining in the Arakan were a few boats of the 121st H.D.M.L. Flotilla which were based at Chittagong and operated in the forward areas on various duties when required. In March, H.D.M.L. 1120 was at Teknaaf helping to salvage a workshop lorry which had sunk while being loaded, and later in the month H.D.M.L. 1115 helped in the salvage of a

crashed liberator at Cox's Bazar. The last three boats (1115, 1117 & 1120) returned to Calcutta in April.

Supporting Operations—Other Ships

This narrative of the Burma Operations has so far dealt with the role of the coastal forces, landing craft, and the tasks carried out by the sloops. Mention may also now be made of some of the other ships which visited Burmese waters in support of these operations, and of those ships which indirectly contributed to their success.

Deserving of mention were five little ships, auxiliary vessels which had been built as coastal craft specially for the Barisal-Chittagong run. Their size and draft made them particularly suitable for plying to and from Cox's Bazar. The entrance to this port was difficult, and there were only a few ships in Indian waters capable of navigating the narrows at the entrance. H.M.I. Ships *Sandip*, *Sandoway*, *Selama*, *Sitakhoond* and *Nulchira*, were loaned in early 1943 to the Eastern Army for transportation duties and were eventually paid off later in the year to the Inland Water Transport. H.M.I.S. *Baroda* was also on loan to the army in 1943 as a hospital carrier, and in April 1944 the Inland Water Transport took her over also.

Sea Transport

In October 1943 the Sea Transport Service in India commenced move "Vanity", the largest and longest move of stores, vehicles and troops carried out up to that time in the east. The aim was the building up of the Eastern Army to meet the Japanese threat and to counter-attack in Burma, and the move was mainly between Vizagapatam, Madras, Calcutta and Chittagong. All these ports had been greatly developed to enable them to handle the new heavy loads; and bunkering, watering, victualling and stevedoring facilities had been rapidly and stevedorially improved. Between 20 October 1943, and 30 April 1944, when move "Vanity" temporarily ceased, Calcutta alone handled the following sailings :—

- 106 sailings of troop ships, carrying 137,824 troops.
- 99 sailings of M.T. ships, carrying 16,022 vehicles.
- 61 sailings of store ships, carrying 118,669 tons.
- 22 sailings of colliers ships, carrying 71,779 tons of coal.
- 25 sailings of hospital ships, carrying 9,781 patients.

From Vizagapatam, a total of 5,797 motor vehicles, 172 motorcycles, 1 trailer pump, 84 guns and 1,138 personnel were shipped between February and April 1944; a total of 32,000 tons of stores was shipped monthly. At Madras between 24 August and 15

October 1943, 33,756 troops and their equipment were handled by Sea Transport.

At Chittagong, to which most of these shipments, were proceeding, a total of 128,900 troops and 16,039 vehicles was handled between 1 September 1943 and 29 February 1944, and in the same period 202,241 tons of military stores were landed, and some 87,780 tons loaded for Cox's Bazar and Maungdaw. The daily average of stores received in, and despatched out, rose from 606.2 tons of imports and 180 tons of exports in September 1943 to 1,661.1 tons of imports and 790 tons of exports in February 1948. On one day in February 3,000 tons of stores was handled in 24 hours.

Escort Duty

The transport of so many troops and so much valuable equipment carried with it, of course, a huge escort commitment. Many H.M.I. ships, trawlers, fleet minesweepers, and auxiliary anti-submarine vessels were employed on these arduous and monotonous duties between Madras and Chittagong and intermediate ports. It was on one such run, escorting convoy J. C. 36, on 11 February 1944 that H.M.I.S. *Jumna* in company with H.M.A.S. *Launceston*, and H.M.A.S. *Ipswich*, sank a U-boat which had torpedoed the merchantman *Asphalion*. As will be seen Royal Navy ships of the Eastern Fleet, and also Australian warships, assisted the Royal Indian Navy in this work; the following H.M.I. ships participated over various periods :—

H.M.I. Ships Jumna, Cauvery, Kistna, Suttlej, Narbada, Hindustan, Bengal, Bombay, Madras, Baluchistan, Bihar, Carnatic, Kathiawar, Konkan, Kumaon, Orissa, Oudh, Rohilkhand, Berar, Baroda, Madura, Agra, Lahore, Patna, Calcutta, Shillong, Ahmedabad, Cuttack, Amritsar, Lilavati, Kalavati, Netravati, Pansy, Ramdas, Satyavati, St. Anthony, Irrawaddi.

Midget Naval Units in Action

One of the smallest self-contained units in the amphibious Arakan campaigns was R.I.N. Beach Signal Stations. They took part in every major landing on the Arakan, normally "setting up shop" on assault beaches within fifteen minutes of the first wave. "At a beachhead when I landed at H-Hour plus forty", wrote an R.I.N. Observer, "an advanced party of this Station was already comfortably sconced in a palm-thatched dugout and were sending and receiving messages in a quantity that would have done credit to a metropolitan telegraph office. Official correspondence referred to them as 21 B.S.S. (R.I.N.). They were an integral part of the R.I.N.'s landing craft wing but, in the Arakan, they were complete-

ly self-sufficient. Their two officers between them did the work which in larger naval units was done by engineer, electrical, victualling, pay and clothing officers. They were vital to every landing—a midget organization which did a giant's work”.

A Radar Barge

War at sea always carries with it the hazards of navigation and weather as well as of the enemy. In January H.M.I.S. *Bihar* was detailed to tow a 100 ton radar barge from Chittagong. Ship and barge sailed on 4 January and at 0200 on 6 January the weather suddenly deteriorated, and violent squalls struck the ship. The barge became unmanageable, and finally the tow parted.

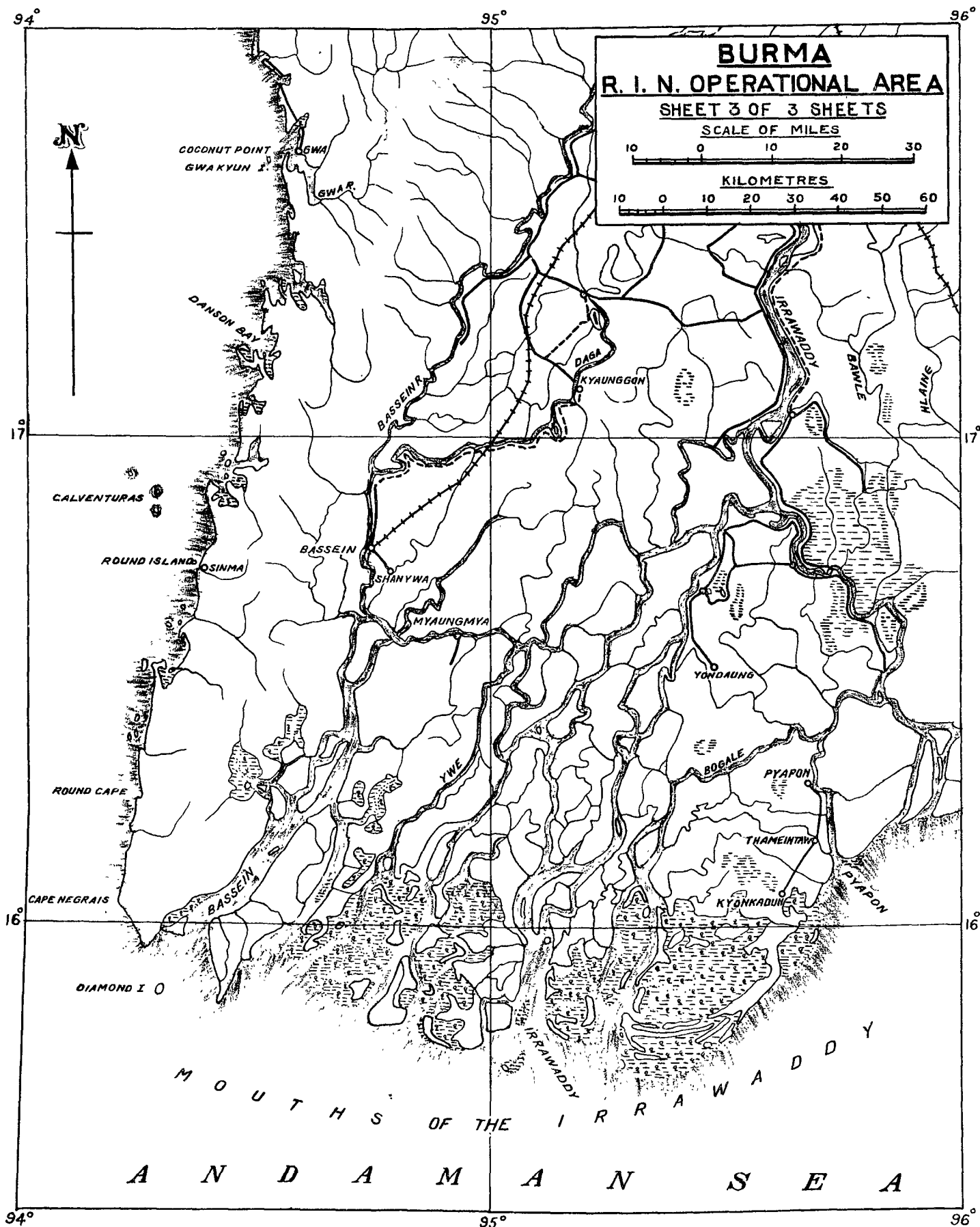
During the night the barge was not visible, but was held by the *Bihar's* radar. When she was sighted again in the morning, it was found that the crew had abandoned the barge which was listing about 20° to port and rolling heavily. Two volunteers from the *Bihar* (S/Lt. A.M.G. Brown, R.I.N.V.R. and S/Lt. (E) J.R.C. Philips R.I.N.V.R.) boarded the barge, and at considerable personal risk steered it while it was towed to Oyster Island. These officers were later mentioned in dispatches.

Ancillary Duties

In November 1944, H.M.I.S. *Ahmedabad* and H.M.I.S. *Patna* both made trips to Teknaaf, escorting L.C.Ts. In early 1945 H.M.I.S. *Konkan* and *Kathiawar* were part of the escort of the Kyaukpyu assault convoy, and in January and February H.M.I.S. *Baluchistan* and *Kathiawar* had been on escort work between Chittagong, Akyab, Teknaaf and Kyaukpyu.

Motor Minesweepers

February 1945, saw the first Royal Indian Navy minesweepers in Burmese waters, when Motor Minesweepers 129, 130 and 131 arrived in Akyab under the orders of Commander, Minesweeping, Bay of Bengal. Their first duties were to sweep approaches to Akyab for magnetic mines. Thereafter, the ships were employed on odd jobs in support of general operations. They carried troops and stores from Myebon to Ruywa, carried out ferry control and block ship duties in Ruywa Chaung, and escorted Landing Craft Mechanized store ship, Harbour Defence Motor Launches and Motor Fishery Vessels between Kyaukpyu, Ruywa and Akyab. M.M.S. 130 and 131 left Burma in April, but 129 stayed till May, having been employed for a month on degaussing range duties at Akyab and Kyaukpyu.



On to Rangoon D-Day : 2 May 1945, H-Hour : 0800

In April 1945, the newly-formed 37th Minesweeping Flotilla began to assemble at Mandapam, to prepare for the last great operation for which the service had been working and planning for three long years. Operation "Dracula", the assault on Rangoon, was at last on. The Flotilla consisted of Bangor and Bathurst class Fleet Minesweepers, H. M. I. Ships *Bengal, Bombay, Punjab, Bihar, Kumaon, Khyber, Orissa, Rajputana* and *Rohilkhand*. In company were four Basset trawlers, H.M.I. Ships *Agra, Lahore, Patna* and *Poona* who were to act as danlayers for the Flotilla.

Preparation

The Flotilla worked up at Mandapam, and after boiler-cleaning at Colombo, sailed on 16 April for Akyab, where it arrived on the 20th. Between 21 and 28 April there were further Flotilla exercises, and on 29 April the Flotilla sailed from Akyab for Rangoon, joining up on the way with the huge assault convoy, among whose escorts were the sloops *Sutlej* and *Cauvery*.

Assault

On 30 April the *Kumaon* parted company with the rest of the Flotilla, and proceeded to a position 13 miles south-west of Alguada, in order to mark accurately the starting point for the clearance sweep of the area. For the Navy, the Rangoon River landings were yet another case of bold planning paying off. It was an operation that could have been extremely hazardous. The Navy emerged with flying colours. The credit for success in no small measure goes to the paratroopers and Allied air forces who made the naval landings tenable. Our little ships and landing craft with no support from big naval guns, audaciously entered the river at dawn, sailed nearly half way to the port of Rangoon to put our land forces ashore on either bank of the fast flowing muddy Irrawaddi river. The Japanese made no move to intervene. At last they reached the assembly base where ships had been massing for days with a convoy of packed landing craft and large supply vessels. A signal flashed down. The presence of columns of ships gave them an additional fillip. It was just then announced that Germany had offered unconditional surrender. The troops in the ships ahead waved and cheered when they heard that news. A four hundred mile passage lay before them and at that time of year, monsoon had begun and there was every chance of meeting bad weather. One M.L. lost the use of an engine soon after leaving harbour but struggled determinedly to keep up. Refusing to turn back, she

lagged further and further behind until it was almost lost to sight. But a few hours later they saw her creeping up on them and at last she was back in station with repairs completed.

Protected by sloops of the Royal Indian Navy the convoy steered to the rendezvous on the mouth of the Rangoon river entirely without incident. Other convoys, heading in the same direction, passed them on or were overtaken. In the distance carriers with their escorts shadowed their course. It was the middle of the night when they arrived at the rendezvous. Troop carriers and ships of all sizes were already assembled. A fitful moon intermittently lit the scene as troops piled from the big ships into small assault craft. To their south lay the powerful units of the East Indies Fleet including battleships and aircraft carriers which secured them from surface interference. Skilful seamanship was required in that strong tide and swell to get the landing craft lowered, and with their light escorts they set off to the assault.

Eleven months earlier many of those ships, officers and men had been engaged in another "D-Day" and as the landing craft slipped away on their thirty-one mile run into the assault beach the thoughts of many flew back to 6 June 1944. The passage to Rangoon river was four times as long. The distance which the little assault craft had to cover from their parent ships to the beach was the longest in the history of amphibious war, and this time there was no reassuring crash from the big guns of the Fleet to cover the landing. Bombardment from big ships was ruled out by the shallow water, and for supporting fire reliance was placed on the motor launches and the guns mounted on the landing craft. "In this Assault, Royal Indian Navy was proud to play a minor but nevertheless a worthy part" wrote a Royal Indian Navy observer. Two sloops H.M.I.S. *Sutlej* and H.M.I.S. *Cauvery* which had helped escort convoys to the mouth of the river now stood ready to bombard shore positions if required.

The convoy arrived at the lowering point off the mouth of the river and the intricate task of putting soldiers into assault craft was carried out in darkness and heavy rainstorm which drenched the troops. The apparent confusion as hundreds of craft manoeuvred for positions rapidly resolved itself into orderly formations, and at dawn a splendend spectacle presented itself of twin assault forces destined for east and west banks of the river complete with guns, tanks and supporting weapons moving off on the flood tide exactly according to schedule.

It was important for the troops to move up the river with a strong six-knot tide in their favour according to schedule, disembark at H-Hour and allow craft to return to their ships on ebb tide for the next wave of the Assault Force. Everything went as planned and the initial landings met with little opposition. In this assault a major part was played by Indian troops. In addition to paratroopers who were dropped on Elephant Point at the mouth of the river on D-minus-one and had successfully secured their objective, the first wave included the Jats, Frontier Force Rifles and Eighth Gurkhas on the west bank and Garhwalis, Lincolns and First Punjabis on the east bank of the river, while Sherman tanks of the 19th Lancers supported the assault. A naval feature of the assault was the support provided by landing craft guns which were intended to eliminate Japanese strongpoints by close-range bombardment. Air bombing, which preceded the landing was also heavy and effective.

Thus history repeated itself. In the Arakan Operations of 1855, a Combined Naval Force of the Royal Navy and the Indian Marine commanded by Commodore John (Bully) Hayes of Indian Marine took Akyab and Kyaukpyu by assault in rapid succession, while in 1852 another Naval Force sailed up the Rangoon river and captured the city. In that force was included the father of Lieut. General Sir Philip Christison who now commanded the XV Indian Corps which was responsible for the conquest of Arakan.

The first ship of the invasion Fleet to take up position off the mouth of the Rangoon river was H.M.I.S. *Punjab*. She belonged to a naval force which, consisting of escorting vessels (fleet mine-sweepers) of Royal Navy and Royal Indian Navy, went ahead of the main convoy of troopships and landing craft. This force prepared for the convoys safe arrival by marking the anchorage and tank lowering positions the day before D-day. Navigating skilfully into unswept waters where danger of mines was greatest, Indian warships with gun crews at the first degree of readiness, in view of periodical air raid warnings, led the way at the approaches of the Rangoon river sweeping a passage clear and enabling mark vessels to be stationed and danbuoys to be laid. The task was made more difficult by atrocious weather with strong tidal currents running and visibility often down to 50 yards. Suffice it to say that the Royal Indian Navy minesweepers swept the channel for the first convoy enabling it to proceed up the Irrawaddi delta and into Rangoon. No mines were cut or detonated during the operation.

The capture of Rangoon on 2 May 1945 was not the end of the Burma campaign, but it was the visible token of success. The

1945 campaign had been fast and had been crowned with complete success. Burma was free again.

The ships of the 37th Minesweeping Flotilla remained at Rangoon for some days, carrying out various duties, and by mid-May they were all back in India.

After the Victory

It remains now only to gather up a few loose threads, and to mention the part played in the final clearance of the Yomas and Tavoy area.

After the capture of Rangoon, the army in the south of Burma was reinforced from India, and in this movement H.M.I.S. *Llanstephan Castle* and H.M.I.S. *Sonavati* now employed as a store-carrier, took part.

In the Victory Review held by Admiral Mountbatten on 15 and 16 June the R.I.N. was represented by H.M.I.S. *Barracuda* (she had come down from Kyaukpyu to service Royal Navy motor launches in May) and H.M.I.S. *Assam*. The latter vessel, a corvette, was then based on Rangoon for escort duties between the port and Akyab, Kyaukpyu and Chittagong.

Anti-Escape Patrols

During May, June and July, H.M.I. sloops maintained day and night patrols in the Andamans Sea, and off the Tenasserim and Tavoy Coasts, to prevent the escape of small parties of the Japanese by sea. H.M.I. Ships *Cauvery*, *Narbada*, *Godavari*, *Kistna*, *Sutlej* and *Hindustan* visited many little known islands in the Mergui Archipelago, the Forrest Strait, and the Moscos and Bentinck Group, in order to foil attempts at escape.

The R.I.N. had played a worthy part in the liberation of Burma. In few campaigns has there been such intimate or more successful co-operation between sea and land forces as in this one. It was made possible, in the first place, by the unique nature of the Arakan coast, where the maze of chaungs and inland waterways flanked so much of the terrain over which the army fought; and in the second place, by the combination of survey and seamanship which enabled those flanks to be utilised to the full by the Navy's shallower-draught craft. Lt/Gen Sir Philip Christison paid tribute to officers and ratings of the R.I.N. on the capture of Rangoon. In a letter to the Flag Officer Commanding, he said :—

“The Arakan campaign is now virtually over. Since I last wrote to you the work of all Officers and Ratings of the R.I.N. has main-

tained its high standard and the spirit of co-operation and comradeship had been maintained in the face of all difficulties.

"The Operations in which we have recently been engaged in narrow chaungs lined by mangrove swamps and often overlooked by Jap held hills, with swift currents and large rise and fall of tides, had called for great skill, seamanship and courage. These qualities have enabled us to carry out operations never before attempted by any British forces.

"I am extremely grateful to all of them for what they have done, and all ranks of XV Indian Corps are very proud of their comrades. We will always remember fighting besides them.

"An outstanding feature has been the maintenance of Craft over a long period under the most difficult circumstances, and the high serviceability state kept up has enabled us to build up our Assault Forces rapidly before the enemy had time to react.

"I congratulate all those concerned and I hope we shall have you with us for future Operations".

The work of minesweepers of the Royal Navy and the Royal Indian Navy won recognition. They were engaged in clearing a channel up to the port of Rangoon, so that Allied shipping might once more steam up to Burma's capital. Indian and British sailors on board these minesweepers toiled without respite, in danger of being blown up by mines and in the face of bad weather, opening up navigational channels, initially to enable our troops to swarm ashore from landing craft and afterwards to allow the first convoy to proceed into Rangoon. The convoy route past the estuaries of the Bassein, Irrawaddy & Rangoon rivers was swept for mines by these minesweepers. An anchorage was prepared outside the Rangoon river, and from it the landing craft, went ashore on D-Day. Everything had to be done quickly in accordance with a set programme which was adhered to strictly and in certain respects work was finished ahead of the schedule.

One of the riskiest jobs was undertaken by H.M.I.S. *Punjab*, who without knowing the state of Japanese preparedness ashore had to steam in front of the minesweepers and station herself at the mouth of the river where she risked a fusillade from hostile artillery—a risk that fortunately did not materialise. It was more than a possibility that the Japanese had sown mines in the river approaches and the minesweepers got to work immediately on arrival, braving all risks. When the convoy arrived, it found that the danger areas had been searched and that channels and an anchorage had been prepared for it.

A particularly dangerous role was assigned to a force of auxiliary minesweepers of the Royal Navy. These drew less water than their consorts and were therefore given the task of proceeding into the Rangoon river and sweeping the shallow reaches as well as the navigational channel. They took with them surveying parties to ascertain and mark out the navigational channel and to make points of bearing ashore more conspicuous. As there was no time to lose, these minesweepers proceeded on D-Day into the river while the rest of the force continued outside widening the approach channel already swept. It was believed that the estuary was mined and, in fact, the little minesweepers steaming bravely in formation found a number of mines on the first day in the river and bagged others during the next 48 hours. All the time the surveying parties were at work and buoys were being laid along the route that the minesweepers had cleared.

CHAPTER XV

Epilogue

The Atom Bomb with its devastating results came as a shock and surprise to the Allies just as much as to the Japanese. The Japanese were at the time holding a perimeter extending in places to a radius of 3,000 miles from Tokyo, and though this perimeter had been pierced by the Allied forces, who had liberated Burma and the Philippines and seized Okinawa, their hold on the outlying strongholds in the Western and Central Pacific prevented concentration of maximum force against the Japanese homeland. Particularly important from this point of view were the Japanese positions in Tenasserim, the Kra Isthmus, Malaya and Sumatra which covered the approaches to Singapore and guarded the Malacca Straits—gateway to the South China Sea and the shortest route from India to Japan.

Operations designed to re-open that sea route had high priority in the plans of the Combined Chiefs of Staff who conferred at Potsdam in July 1945. In fact, preliminary moves were well under way in that month, with British and Indian Minesweepers (H.M.I.S. *Punjab* and H.M.I.S. *Deccan* were mentioned in official reports at that time) methodically clearing the waters between the Nicobar Islands, the Malay Peninsula and the northern tip of Sumatra, in spite of opposition from the air. Meanwhile personnel of the Royal Indian Navy, Landing Craft Wing, who had established their fame in the Arakan earlier that year, had proceeded to the Middle East to commission a number of new Tank Landing Craft handed over by the Royal Navy. They had completed a period of strenuous training with their new craft and were "all set" for the fast approaching D-Day.

This D-Day however never came. On 15 August when war correspondents were congregating in Ceylon to cover South-East Asia Command's greatest enterprise, news was received of Emperor Hirohito's acceptance of unconditional surrender. Faced with the danger of complete destruction the Japanese had no other choice. The secret weapon which wrought havoc on Hiroshima and Nagasaki convinced them of the futility of any further fighting. Overnight their policy, which had been to prolong the war in the hope of securing a negotiated peace, underwent a radical change. The surrender of their forces to the Allies was arranged in the various sectors. In

Singapore was celebrated the surrender of the Japanese army in South-East Asia.

Representing the Royal Indian Navy in Singapore waters, while the surrender of all Japanese forces in South-East Asia was taking place ashore, were warships that had played a gallant part in the struggle against Japan. Among them were the sloops H.M.I.S. *Godavari*, H.M.I.S. *Cauvery*, R.I.N. Fleet Minesweepers *Punjab*, *Bihar*, *Kumaon* and *Rohilkhand*, motor launches of the 56th (R.I.N.) M.L. Flotilla and the Coastal Forces Depot and Repair Ship, H.M.I.S. *Barracuda*.

Minesweeping Operations in the Malacca Straits

Captain R.H.V. Sievewright who led British minesweepers across the English Channel ahead of the invasion force on their way to Normandy in 1944 was now (1945) in command of the Minesweeping Force which stood by at sea to clear a safe lane through the shallow, mined waters of the Malacca Strait. With this force the Channels were cleared of the minefields, which enabled the ships of the East Indies Fleet along with convoys comprising of food and hospital ships to arrive safely at Singapore and other Malayan ports. With the arrival of the Fleet the tens of thousands of Allied prisoners of war were released.

As the Supreme Allied Commander of South East Asia, Admiral the Lord Louis Mountbatten was to receive the surrender at Singapore units of the East Indies Fleet were employed on this occasion and amongst them was the 37th Mine Sweepers Flotilla. The Invasion Fleet sailed from Trincomalee on 15 August 1945 and on its arrival in the Malacca Straits, the 37th Mine Sweepers Flotilla commenced sweeping a channel at the northern end, 10 cables in width, in order that H.M.S. *Sussex*, carrying the Japanese negotiators, might pass through in safety. Charts of the Japanese minefields handed over by the Japanese envoys at Penang two days before were interpreted, and the necessary information was then held by the minesweepers which came to have an arduous programme ahead, their task being as important as any to be tackled by Fleet Minesweepers during the war. Two flotillas were employed on this minesweeping operation which started on 2 September 1945. They were the 6th M.S.F. consisting of nine ships and the 37th M.S.F. consisting of H.M.I. ships *Rohilkhand*, *Khyber*, *Kathiawar*, *Orissa*, *Rajputana*, *Konkan*, *Bihar*, *Deccan*, *Carnatic*, (minesweepers), H.M.I. Ships, *Bengal*, *Oudh*, *Kumaon*, and *Punjab* (dan-layers), and H.M.I.S. *Baluchistan* (mine destroyer).

The entire operation was completed in three days in which time all moored mines were swept and a check sweep indicated the channel was navigable.

On 5 September the Flotilla commenced sweeping a known Japanese minefield off the Morib beaches to facilitate the safe landing of the occupation troops, which was due to commence at day-break on 9 September 1945. The Japanese mines were reported to have been laid in two lines in a southerly direction and about 2 miles apart. The first part of the operation consisted in locating the mines. And this done, the mines (27 of them) were cut and sunk and the operation was completed by the 8th, a day before the troops were due to land. During this period H.M.I. ships *Bihar* and *Punjab* were attached to the 7th Mine Sweepers Flotilla and were employed on minesweeping duties off Sabang and south-east of Singapore. On completion of these duties these two ships were also employed in a sweep off Batavia.

Among the ships engaged in the Malacca Straits after 2 September 1945, and which had previously rendered excellent service in sweeping ahead of the Invasion Force which retook Rangoon in May 1945, are to be mentioned : H.M.I.S. *Rajputana*, H.M.I.S. *Kathiawar*, H.M.I.S. *Konkan*, H.M.I.S. *Deccan*, H.M.I.S. *Carnatic*, H.M.I.S. *Oudh*, H.M.I.S. *Kumaon* and H.M.I.S. *Baluchistan*.

Early in October 1945, the 37th Mine Sweepers Flotilla commenced a clearance sweep of a one-fathom-bank minefield in the Malacca Straits. The lines of mines were a mile and in some cases more from their charted positions as reported by the Japanese. This was not unusual due to the difficulty of obtaining accurate fixes. The total number of mines destroyed was 95 and, bearing in mind the difficulties associated with tidal streams and varying depths of water, the task of sweeping this area was hazardous. The Flotilla encountered numerous shoals which were not in their charted positions. All the same, the total area swept was 110 square miles. A check sweep was carried out on 23 October, during which two mines were destroyed. The entire operation was completed by 26 October.

The last of the minesweeping operations commenced on 9 November 1945. The area, Singapore Roads, proved to be clear of mines and the check sweep was not considered necessary on this occasion. On 13 November the 37th Mine Sweepers Flotilla sailed from Singapore for Trincomalee and arrived there on the 19th sailing the next day for Bombay and arriving on 25 November 1945.

H.M.I.S. Deccan

The Commanding Officer of H.M.I.S. *Deccan*, Lieut. Commander C. J. Mohan, R.I.N.R., was complimented by the Flag Officer Commanding the Naval Force on the gallant part played by his ship in the British East Indies Fleet's minesweeping operations off the Malayan coast at the end of July 1945.

H.M.I.S. *Deccan* was employed in laying dan-buoys to mark the channel cleared by the minesweepers at the entrance to the Malacca Straits and also carried out the destruction of mines located by the Flotilla. When one of H.M. minesweeper caught fire, the *Deccan* was the first ship to go alongside to take off the crew. Subsequently, while the minesweeper fought the fire with the aid of another Indian warship, the *Punjab*, the *Deccan* protected both ships from bombing attacks by laying a smoke screen and putting up an effective barrage with her guns. It was believed that she had scored hits on an attacking bomber.

At one stage in the minesweeping operations she had a narrow escape from being damaged by a mine which had suddenly appeared in the sea twenty feet away. As the mine was drifting towards her, the *Deccan* slipped the dan-buoy mooring wire, manoeuvring to the correct range, and sank the mine with gunfire.

H.M.I.S. Punjab

Manoeuvring alongside a burning minesweeper, the officers and ratings of H.M.I.S. *Punjab* fought the fire until orders were given to abandon the crippled ship. Casting off, the *Punjab* took aboard the crew of the minesweeper and stood by as she was sunk by guns of the British East Indies Fleet. The incident occurred during the minesweeping operation off the Malay Coast, which coincided with heavy naval air strikes against the Japanese in South-East Asia. The *Punjab* then was one of the R.I.N. dan-layers working with a Royal Navy Minesweeping Flotilla.

After striking a mine, one of the R.N. minesweepers, H.M.S. *Squirrel*, caught fire below decks. The Commander of the *Punjab* took his ship alongside, manned the hoses and attempted to extinguish the flames. After half an hour, however, the ship had to be abandoned, and the *Punjab* cast off, taking the survivors with her.

During the minesweeping operations off Malaya her gunners scored hits on a Japanese "suicide" plane.

The Liberation of Andamans

When the convoy bringing our troops and supplies arrived to occupy the Andamans in October 1945, they found H.M.I.S. *Nar-*

bada, Flagship of the Royal Indian Navy, already anchored in the deep sea harbour of Port Blair. Operating off the Andamans days before the main force arrived, she had performed a number of valuable tasks essential to the success of the re-occupation. One of the first was to prepare for our incoming ships a safe anchorage in those mined waters. At conferences lasting over five days, questions about the minefields, anchorages etc. were put to the Japanese authorities, led by Vice-Admiral Teizo Hara, Commanding the Japanese Naval Forces in the islands, and early answers were demanded.

A week before our troops reached Port Blair, H.M.I.S. *Narbada* had organised landing parties to search for people on outlying islands. Those found in Havelock, Nancowry and Long Islands had grim tales of hardship to tell. Some recuperated aboard the *Narbada*, where they were given every care and attention.

Commanded by Lieut. Commander J. F. Bayliss, R.I.N., the Indian warship kept vigilant watch off shore as our troops took over the Andamans three-and-a-half years after their evacuation in March 1942. Her reassuring presence near the troops' point of disembarkation was in itself a safeguard against hostile action by the Japanese.

On the arrival of the convoy, the bigger ships anchored at the eastern end of Port Blair harbour, and the Navy lost no time in putting the troops ashore. Landing craft sped past the *Narbada* in perfect order with advanced units of 8/5 Rajputana Rifles. Soon other Landing Craft Assault did many trips between the convoy and shore. The troops landed in assault order, fully armed, taking no risks, and, advancing without incident, secured their positions and established headquarters.

The *Narbada* took a prominent part in the Arakan operations early that year. Her then Commanding Officer Captain H.M.St. L. Nott, R.I.N. was awarded the D.S.O. In those operations she fired over 10,000 rounds and shot down two air craft. Twenty per cent of the Distinguished Service Medals awarded to ratings who had served in the Arakan, went to her ship's company.

Between 26 September 1945 and 5 November 1945, the period of her stay in Port Blair, the *Narbada* was extremely busy. She sent search parties to all the islands to search for survivors of internees and prisoners who had been deported from Port Blair. The search parties interrogated the local inhabitants also. Considerable data was collected. Two visits were also paid to Nancowry in the Nicobars.

Visiting a small village on Car Nicobar Island, the *Narbada's* officers with a civilian officer found in a small hut an Indian doctor's

family consisting of a mother and three children—the eldest only six—with their *ayah*, who had tended them all through the difficult period of the Japanese occupation. They had a tragic story to tell. They were brought to the *Narbada* and escorted to Port Blair.

The *Narbada* also did an excellent job in providing wireless communications for the army, civil authorities and the press, to India and Ceylon. On 5 November 1945 she was relieved by H.M.I.S. *Kistna*.

Operational Programmes of Other Ships

Between July 1945 and the close of the year, ships of the Royal Indian Navy were employed in varied activities. H.M.I.S. *Godavari* and H.M.I.S. *Cauvery* joined the British Pacific Fleet in October. They were employed on escort duty on the China Coast. The *Godavari* called at Hong Kong in October. The end of the war did not mean the end of work for her. The *Godavari* was ordered to proceed to the rescue of a Chinese junk which had her mast and sail blown away and her engines damaged in a typhoon. She helped the junk in getting back to Hong Kong from St. John's Island, eighty miles south-west of Macao.

The Landing Ship Infantry (Large), H.M.I.S. *Lil-anstephen Castle*, completed her Rangoon-Madras trooping programme in July, and after a short stay at Karachi for repairs, proceeded to Hong Kong carrying the 3rd Commando Brigade. She arrived there on 11 September and sailed a week later carrying released Allied prisoners of war and internees to India. During October the ship made one trip carrying troops to Batavia. Most of the Basset trawlers were engaged on a towage programme between Mandapam, Chittagong and Rangoon. H.M.I.S. *Sind* assisted in that programme on the Chittagong-Rangoon leg. H.M.I.S. *Assam* was stationed at Karachi for air-sea rescue duties and H.M.I.S. *Gondwana* continued sea training work at Bombay. During the severe cyclone on the east coast in mid-October, H.M.I.S. *Ahmedabad* sailed from Vizagapatam to search for a Royal Navy Landing Craft Tank which was overdue. The *Ahmedabad* was herself driven aground off Coconada and salvage operations soon started.

H.M.I. ships took part in two relief operations for the civil population. In October, H.M.I.S. *Poona* made two trips to the Laccadive Island to land medical parties to fight a smallpox epidemic, and H.M.I. ships *Hindustan* and *Karachi* carried relief supplies to Pasni and Ormara (Las Bela and Kelat States) after the November earthquake and tidal wave.

H.M.I. ships *Sutlej* and *Jumna* were under refit at Bombay and Massawa respectively for most of the period. H.M.I.S. *Hindustan* was withdrawn from operational service, and allotted as Gunnery Firing Ship. H.M.I.S. *Lawrence* had joined the Bombay Training Flotilla. H.M.I.S. *Investigator*, the Boys Training Ship, made two lengthy training cruises to the East African coast, one in August-September, and one in November-December. She visited Killindini, Lindi, Dar-es-Salaam, Zanzibar and the Seychelles, and was enthusiastically received at all ports. H.M.I.S. *Nasik* replaced H.M.I.S. *Nautilus* as High Frequency/Direction Finding Calibration ship at Trincomalee.

Ships Commissioned and Paid off in 1945

Several new ships were commissioned, including three new frigates, H.M.I. ships *Dhanush*, *Shamsher* and *Tir* (formerly H.M. ships *Deveron*, *Nadder* and *Bann*). The first of those frigates were meant to be utilised as training ships, to enable H.M.I. Ships *Lawrence* and *Clive* to be paid off. The following ships were then under construction :—

Bangors : H.M.I.S. *Malwa*

Bassets : H.M.I.S. *Cochin*, *Lucknow*, *Peshawar*, *Quetta* and *Rampur*.

H.M.I.S. *Rampur* was commissioned on 17 October.

During the period the following ships were paid off from naval service :—

H.M.I.S. *Pansy* returned to owners, H.M.I.S. *Somagvi* was transferred to the army as a store carrier. In addition, the following ships were also paid off :—

H.M.I.S. *Cornwallis*, H.M.I.S. *Oostacapelle*, *Satyavati*, *Lilavati*, *Hiravati*, *Netravati*, *Ratnagiri*, *Ramdas*, *Sonavati*, *Kalavati* and *Bhadra-vati*.

Demobilisation of Ships in 1945

Out of the 37 Auxiliary vessels which were requisitioned during the war, 15 were returned to their owners, 9 were taken over by other services, 5 were still in commission and 8 were in the process of being paid off.

FORGING AHEAD IN THE HOME AND OTHER FRONTS

Salvage in 1945

The Royal Indian Navy Salvage Organisation prepared the S.S. *Elhind* for towing to Mandapam where she was sunk as a break-water. This necessitated lightening the ship considerably by oxy-acetylene cutting and other means to bring the vessel to the required

draught for approaching Mandapam. An R.I.N. Salvage Officer assisted in the sinking of the ship in position. The organisation was able to raise in three days the tug *Foremost* which had sunk outside the entrance to Mazagon dry dock, Bombay. The Port Trust tug *Ranger* which sank in the entrance to Vizagapatam on 25 March was successfully re-floated and placed in dry dock on 14 June. A large pontoon fitted with deck machinery which sank in the harbour at Vizagapatam was salvaged for the Scindia Steam Navigation Company Limited on 4 May. During the severe cyclone on the East Coast in mid-October H.M.I.S. *Ahmedabad* sailed from Vizagapatam to search for a Royal Navy Landing Craft Tank which was overdue. The *Ahmedabad* was herself driven aground off Coconada, and salvage operations started immediately.

Personnel

No new branches were formed. The end of hostilities necessitated the withdrawal of ratings from certain temporary branches and the grant to them of intensified training to fit them for retention in other permanent branches in the Service. Recruitment of ratings (except boys) was suspended from September 1945 till 1 May 1946, Naval Wings of Recruits Reception Camps at Bangalore and Meerut closed down on 1 October 1945. Recruits were then sent direct to the R.I.N. Training Establishments. The cadre of ratings for the Royal Indian Fleet Reserve was fixed provisionally at 5,000. H.M.I.S. *Jahanara* at Bangalore, and H.M.I.S. *Nalini* at Calcutta which comprised the WRINS sections of No. 1 and No. 3 of W.A.C.(I) recruit training centres, were closed down owing to the suspension of recruitment. With the cessation of hostilities, it was decided to return ex-army ratings to their respective army units. Those who were willing to take their discharge direct from the Royal Indian Navy under R.I.N. terms of release were allowed to do so. Up till October 1945, 695 ex-army ratings had been returned to their parent units.

Exhibitions and Publicity

The Services Victory Exhibition was opened in New Delhi by the Viceroy on 26 November 1945 and was officially closed by the Commander-in-Chief on 2 December 1945. This was the last exhibition and the War Services Exhibition Unit was then disbanded. The Naval Unit was specially augmented on this occasion by a Royal Guard from H.M.I.S. *Himalaya* which was paraded for the Viceroy. In addition to this a musical semaphore team was brought to Delhi from H.M.I.S. *Bahadur* and gave a 10

minute display each afternoon. The WRINS gave a demonstration of their work in coding and Fleet Mail Offices, and displayed photographs and posters of the various categories of work carried out by the WRINS during the war. They also took part in the V-Day and Navy Day parades. Navy Day 1945 was celebrated in Bombay and Karachi on 1 December. A Victoria Cross presentation parade took place in Delhi on 19 December 1945. The R.I.N. contingent comprising of two officers and fifty ratings participated in the parade.

In a broadcast from New Delhi, General Sir Claude Auchinleck, the Commander-in-Chief in India, paid a warm tribute to the work of the Royal Indian Navy during the war. He would, he said, like to see India becoming navy-conscious and seaminded as befitted a nation with such a great length of coastline. He hoped that the realisation that the Royal Indian Navy offered a fine career to their sons would take hold and spread in the minds of people all over India.

Naval Headquarters, New Delhi

The general tendency during the early months of 1945 was towards consolidation and reduction of personnel in the Headquarters' set-up, which was rather inflated as a war-time measure. The process of retrenchment and contraction proceeded vigorously. The method adopted was to stage the reductions into periods of about two months. By 31 March 1946 it was expected that Naval Headquarters' staff would reach the "half-way-house", between the full war-time staff and the "lower limit" or post-war establishment.

Indian National War Memorial

Experience and developments in World War II stressed the need for India to be in a position to provide in future, from her own nationals, officers for her three fighting services in sufficient numbers and possessing all the qualities needed by an officer in the execution of his manifold duties. India produced naval, army and air force officers of fine qualities and abilities. As India advanced towards independence it was clear that her fighting services should be manned increasingly by Indian nationals.

Early in 1945, the Government of India decided that an Academy on the lines of the United States Academies at West Point and Annapolis, for the education and basic military training of future officers of the Royal Indian Navy, Indian Army and the Royal Indian Air Force would be the most suitable form for the Indian National War Memorial. A Committee was therefore formed, under the

Chairmanship of the Commander-in-Chief, to prepare and submit proposals. Members of that Committee included the Flag Officer Commanding R.I.N., the Air Officer Commanding Air H.Q. and the Chief of the General Staff, and also certain eminent official and non-official British and Indian civilians.

The Committee examined the proposals in detail and suggested the broad policy for the training to be given at the Academy. A questionnaire was issued to the public and the fighting services with a view to obtain a wide range of opinion to ensure that the Indian public was associated from the outset with the project.

Before the War, Indian Cadets for the Royal Indian Navy were sent to Dartmouth, while candidates for the Royal Indian Air Force were trained at Cranwell and for the army largely at the Indian Military Academy, Dehra Dun, although some Indian Cadets were accepted at the Royal Military College, Sandhurst. It was clear that, if the fighting services were to be officered by Indians, many more of them than were in the services before the war, would be required. The object of the training at the British Service Institutions and at the Indian Military Academy, Dehra Dun, was mainly to give Cadets the necessary training in their particular service to fit them for commissions in the junior-most rank of that service. It was suggested that the education given at the proposed Academy in India should be broader and more general. Only essential basic military training would be given and the Academy would have among its chief objects the development of character, the inculcation of a sense of responsibility and self-discipline and, in short, all the qualities of leadership.

DEMOBILISATION AND RESETTLEMENT

Post-War Planning

The end of hostilities in Europe and the trend of war against Japan in 1945 made post-war planning, demobilisation and resettlement questions, matters of urgent import. A Post-War Planning Directorate under a Captain, responsible to the Flag Officer Commanding, started to operate in the Naval Headquarters. Within a few months, it had made considerable progress in solving the outstanding problems. A demobilisation and resettlement section was also added to the department of the Chief of Personnel and was responsible for the planning and operation of demobilisation and resettlement arrangements for officers and men. Close liaison was maintained with the appropriate military and Air Force Directorates and the Departments of Labour.

The Post-War Planning Directorate was engaged in the production of "numbers" required to man the various "limits".¹ Detailed planning then proceeded on the assumption that the "lower limit" of forces would be sanctioned. Since the termination of the war, the title "Post War Planning" became redundant. Steps were taken to amalgamate the Directorate with the Plans Directorate on a reduced scale.

Release Regulations

R.I.N. Release Regulations were drafted 'mutatis mutandis' on the lines of the Release Regulations of the Indian Army. Release Regulations R.I.N. were made operative from 8 May 1945. The Commander-in-Chief in India formed an Inter-Services Demobilisation Planning Staff (I.S.D.P.S.) to co-ordinate all demobilisation plans of the three services. The Flag Officer Commanding, Royal Indian Navy was represented on this Staff. A demobilisation progress report was submitted monthly to the I.S.D.P.S.

A uniform release system was adopted on the basis of combination of age and length of service, with the special provision that men of 50 years of age and over would be treated as a priority class. The general scheme of release by age and length of war service was known as "Class A Release". "Class B Release" consisted of those released for work of national importance, irrespective of age and service group. "Class C Release" was on compassionate grounds. Advance information was given for the guidance of officers completing priority rolls on "X" Day.

¹ For convenience of reference the various limits were defined as follows:—

(a) The Upper Limit:—This comprised all Naval, Army and Air Forces required during occupational period, which was estimated to last from 18 to 24 months after V. J. Day. During the period known as the Demobilisation stage I, the Services reduced down to the "upper limit". The time allotted was from 1 November 1945 to 30 April 1946. The "upper limit", therefore came into force on 1 May 1946. It was not a fixed limit and periodical reductions were made as and when Forces became available for disposal.

(b) The Lower Limit:—This was an agreed numerical limit for demobilisation purposes only, below which the Services were not reduced. It was based on the maintenance of forces, calculated by the Chief of Staff, as the minimum compatible with the safety of the country. It formed the basis on which the structure of the final post-war forces was framed.

(c) The Lowest Limit:—This was a limit dictated purely by financial considerations and bore no relation to calculated requirements. It was an attempt to cut the defence coat according to the financial cloth. Should financial stringency be great this limit was to be substituted for the "lower limit".

Demobilisation by Groups

Owing to the favourable war situation in Europe during the earlier part of the year, it became necessary to have Priority Group numbers for demobilisation allotted to all officers. Work was commenced immediately on officers records. Two officers of the Appointments Directorate were wholly employed in allotting Priority Group numbers to all officers of the Royal Indian Navy. A signal was issued warning personnel not to be too optimistic regarding release from the service as commitments would probably be heavier for the Navy than for the other two services.

Method of Release

Plans for the demobilisation of the Royal Indian Navy personnel involved in their initial stage, a reduction, by 30 April 1946, of 940 Reserve Officers and 9,000 Ratings in the strength of the service. To facilitate a steady flow of officers through the Release Centre (H.M.I.S. *Feroze*, Bombay), officers were released by groups and a start was made in September 1945. The largest number concerned was in the Executive Branch (630 officers) and Special Branch (174 officers). All ex-army officers were released with their parallel groups in the army.

Reductions in the number of ratings were carried out in two phases, the first to be completed by 31 December 1945 and the second by 30 April 1946. In September H.M.I.S. *Hamla II* was paid off and recommissioned as H.M.I.S. *Kukauri*, the demobilisation centre for ratings. In the first phase, 5,464 men were released. Included in these were 1,566 ex-army personnel, already in course of re-transfer to the army, and 1,385 "Hostilities Only" ratings who were mostly merchant seamen recruited for Naval Service early in the war.

Resettlement

The problem of post-war resettlement of its temporary personnel had engaged the attention of the Royal Indian Navy even before the end of the war. As long ago as July 1944, a personal letter was addressed to every Reserve Officer in the service, enquiring about his future plans and ambitions, and asking him whether he would require assistance after demobilisation in obtaining employment, or alternatively, further education or training to fit him for employment. Ninety per cent of the officers addressed replied to these enquiries with promptitude. In August 1944, the first letter was followed up by a second, this time in the form of a comprehensive questionnaire designed to place Naval Headquarters in possession of all the necessary facts about each individual officer.

These steps were taken at a time when it was anticipated that the resettlement of demobilised personnel would become the responsibility of the individual services concerned. The Royal Indian Navy's idea at that time was that a kind of Naval Labour Exchange would be set up, either at Naval Headquarters or in Bombay, as soon as the war was over. Since then, however, the policy of the government underwent a change, and resettlement became the joint responsibility of the Resettlement Directorate in Simla and the Labour Department in the Government of India, the Services being definitely precluded from setting up independent machineries for the resettlement of their own personnel.

This being so, action was confined to the following :—(a) Pre-release training was arranged for all personnel awaiting demobilisation. This included classes designed to improve general education, further technical training for those already doing technical work, lectures in health and hygiene, instruction in civics, and to a limited degree, participation in some of the training courses arranged for their own personnel by the army. (b) The War Information Rooms of all shore establishments were converted into Resettlement Information Rooms, and a very large volume of literature, posters etc. was supplied for display there. Similar literature was sent to all ships afloat. Models and other exhibits for the Information Rooms were prepared. (c) Close liaison was maintained with Resettlement Directorate and Labour Department. (d) Details of many vacancies for appointments in Government and other service were promptly notified to all ships and establishments, and a number of R.I.N. applicants were successful in obtaining posts. (e) Government's rehabilitation scheme was made applicable to the R.I.N. Under this scheme all disabled personnel were retained in the Service while being prepared for civil life. This preparation was carried out in three steps or stages—hospital treatment, post-hospital rehabilitation and training for employment. (f) Demobilisation statistics were supplied to Provincial Governments, who were the authorities mainly concerned with the resettlement of ratings, as soon as they were released.

Resettlement in India was then beginning to take concrete shape. Labour (Employment) Exchanges were opened and appointments offered. The inauguration of the rehabilitation scheme ensured that every disabled or medically unfit rating, provided he was capable of cure or improvement, was physically rehabilitated, and if necessary, taught a trade at which he could earn his living, before he was finally released from the Service.

Unfortunately there was a strong tendency, amongst officers and ratings alike, to believe that a man was only to sit back and wait for the Government to find a job. Steps were taken to inculcate into all ranks the correct outlook on resettlement, which was that every man was expected to do everything possible himself to resettle, and that the function of the Government was to advice and to assist.

In one direction the R.I.N. suffered a severe disappointment. It was hoped that many released ratings would be given official preference when seeking employment in India's Mercantile Marine. When the matter was mooted, however, the Seamen's Union refused unconditionally to agree, the reason given being that the number of jobs available was not sufficient even for the non-Service members of the Unions. As a general strike of all Merchant Seamen was threatened in the event of the project being pressed, it had to be abandoned.

APPENDICES

APPENDIX I

A SUMMARY OF RECOMMENDATIONS OF THE CHATFIELD COMMITTEE

The final recommendations of the Chatfield Committee so far as the Royal Indian Navy was concerned, are summarised below :—

A. *Escort Vessels*

- (a) 19 knot vessels were considered desirable.
- (b) Four new Escort Vessels of the “Bittern” class were recommended, the first pair to be ordered in 1939/40 and completed in 1941/42, the second pair to be ordered in 1942/43 and completed in 1944/45. *Clive*, *Cornwallis* and *Lawrence* were to be scrapped and *Indus* and *Hindustan* were to be rearmed with H.A./L.A. guns.

B. *Minesweepers*

- (a) Four “Mastiff” class trawlers were recommended to be ordered in 1945/46 and completed in 1946/47.
- (b) Four “Halcyon” class minesweepers, the first pair in 1939/40 and the second pair in 1941/42, to be maintained in reserve on the East Indies Station of the Royal Navy, were recommended to be lent to the R.I.N., part of their maintenance cost being borne by the Indian Government and part by His Majesty’s Government.

C. *Motor Torpedo Boats*

Recommended postponing the provision of these.

D. *Depots and Training Establishments*

Recommended the adoption of the proposals in the Nine Year Plan in respect of above (Depots and Training Establishments) and Local Naval Defence Equipment.

APPENDIX II

NAVAL HEADQUARTERS, BOMBAY, TILL 1941

The Flag Officer Commanding, Royal Indian Navy, and his personal staff at the NHQ, Bombay, comprised of the following:—

- | | |
|-----------|--|
| 1. FOCRIN | —Rear Admiral R. N. (lent). He was also the Principal Sea Transport Officer, India |
|-----------|--|

Personal Staff

- | | |
|---------------------|----------------------------------|
| 2. Secretary | —Paymaster Commander R.N. (lent) |
| 3. Flag Lieut. Cdr. | —Lieutenant-Commander R.I.N. |

N.H.Q. Staff

- | | |
|------------------------------------|---|
| 4. Chief of Staff | —Captain R.I.N. |
| 5. Staff Officer (Plans) | —Commander R.I.N. |
| 6. Staff Officer (Intelligence) | —Commander R.I.N. |
| 7. Staff Officer (Operations) | —Lieut. Cdr. R.I.N. |
| 8. Squadron Anti-Submarine Officer | —Lieut. Cdr. R.I.N. |
| 9. Squadron Anti-gas Officer | —Lieut. Cdr. R.I.N., also Assistant Sea Transport Officer, Bombay |
| 10. Squadron Gunnery Officer | —Lieutenant R.I.N. |
| 11. Squadron Signal Officer | —Lieutenant R.I.N. |
| 12. Squadron Navigation Officer | —Lieutenant R.I.N. |
| 13. Engineer Captain | —Captain (Engineer) R.I.N. |
| 14. Squadron Engineer Officer | —Engineer Commander R.I.N. |
| 15. Chief Superintendent | —Civilian Officer |
| 16. Medical Officer | —Major RAMC (a part-time appointment) |

APPENDIX III

BASE FACILITIES

Since the Royal Indian Navy had not expanded and as Bombay was the only port of operation, almost all the establishments were housed in that city. At Bombay the following establishments were situated:—

Naval Headquarters	—R.I.N. Dockyard
Depot with Naval Barracks	”
Office of the Captain Superintendent of the Yard	”
The Engineering Department	”
The Construction Department	”
The Electrical Engineer's Depot	”
The Naval Store Office	”
The Dockyard Police	”
The Dockyard Dispensary	”
Fort W/T Station	”
Mahul W/T Station	—Mahul, Bombay

Besides these, four Training Schools/Establishments were also situated in the R.I.N. Dockyard :—

The Signal School	R.I.N. Dockyard
The Gunnery School	”
The Mechanical Training Establishment	”
The Boys Training Establishment	”

Two Sea Transport Offices were situated, one at Karachi and another at Calcutta.

The Administration of Depot with Barracks, the various schools, wireless stations and training establishments was with the Commanding Officer, Depot. The Dockyard was controlled with the Engineering, Constructive, Electrical and Stores Departments, the Police and the Dispensary by the Captain Superintendent of the Dockyard.

Staffs were as follows:—

Depot Staff, Bombay

1. Commanding Officer Commander (also Director of Personnel Services)

- | | | |
|---|---|--|
| 2. Executive Officer | } | —Lieut. Commander |
| Drafting Officer | | |
| Squadron Physical & Recreational Training Officer | | |
| | | |
| 3. Headmaster | | —Headmaster Lieutenant
(lent from R.N.) |
| 4. Officer-in-Charge, Gunnery School | | —Lieutenant |
| 5. Officer-in-Charge, Signal School | | —Lieutenant |
| 6. Officer-in-Charge, M.T.E. | | —Engineer Lieutenant |
| 7. Commanding Officer, B.T.E. | | —Commander |

Dockyard Staff, Bombay.

- | | |
|---------------------------------------|-----------------------|
| 1. Captain Superintendent | —Captain |
| 2. Commander of the Dockyard | —Lieut. Commander |
| 3. Manager, Engineering Department | —Engineer Commander |
| 4. Manager, Constructive Department | —Engineer Lieutenant |
| 5. Electrical Engineer | —Civilian Officer |
| 6. Naval Store Officer | —do- |
| 7. O i/c, Dockyard Police | —Comd. Boatswain |
| 8. Medical O i/c, Dockyard Dispensary | —Asst. Surgeon I.M.D. |

Ordnance (at Bombay Castle)

- | | |
|---------------------------------|-----------------|
| 1. Ordnance Officer | —Captain IAOC |
| 2. Ordnance Mechanical Engineer | —Major RAOC |
| 3. Warrant O i/c, R.I.N. Group | —Conductor IAOC |

SEA TRANSPORT ESTABLISHMENT

Bombay

- | | |
|---|--------------------------------|
| 1. Principal Sea Transport Officer, India | —Vice Admiral (also
FOCRIN) |
| 2. Divisional Sea Transport Officer | —Commander |
| 3. Asst. Sea Transport Officer | —Lieut. Commander |

Karachi

- | | |
|--------------------------|-------------------|
| 1. Sea Transport Officer | —Lieut. Commander |
| 2. Clerk | —Warrant Writer |

Calcutta

- | | |
|----------|-----------------|
| 1. Clerk | —Warrant Writer |
|----------|-----------------|

APPENDIX IV

SHORE ESTABLISHMENTS OF THE R.I.N. DURING THE WAR

<i>Name</i>	<i>Place</i>	<i>Establishment</i>
H.M.I.S. <i>Monze</i>	Karachi	L.N.D. Naval Base
„ <i>Himalaya</i>	„	Gunnery School
„ <i>Bahadur</i>	„	Boys' Training Establishment
„ <i>Dilawar</i>	„	B.T.E. (Tender to <i>Bahadur</i>)
„ <i>Chamak</i>	„	Radar Training School
„ <i>Valsura</i>	Rozi (Nawa-nagar State)	Torpedo School
„ <i>Venduruthy</i>	Cochin	Naval Base
„ <i>Adyar</i>	Madras	Naval Base
„ <i>Hooghly</i>	Calcutta	Naval Base
„ <i>Circars</i>	Vizagapatam	Naval Base
„ <i>Patunga</i>	Chittagong	Naval Base & L.N.D. Base
„ <i>Dalhousie</i>	Bombay	R.I.N. Depot, Bombay and L.N.D. Base
„ <i>Dalhousie II</i>	„	NOIC Bombay Establishment
„ <i>Akbar</i>	<i>Kolshet</i> (Bombay)	New entry Ratings Training Establishment
„ <i>Feroze</i>	Bombay	Reserve Officers Training Establishment
„ <i>Talwar</i>	„	Signal School
„ <i>Khanjar</i>	Versova (Near Bombay)	New entry Ratings Training Establishment
„ <i>Machlimar</i>	„	Anti-Submarine School
Mechanical Training Establishment (till 1944)	R.I.N. Dockyard	Mechanical Training Establishment
H.M.I.S. <i>Shivaji</i> (after 1944)	Lonavala (Near Thana)	Mechanical Training Establishment
—	Sasoon Dock Bombay	Landing Craft Base
H.M.I.S. <i>Cheetah</i>	Trombay (Bombay)	Motor Transport Boat Training Base
„ <i>Hamla</i>	Mandapam (Near Rameswaram)	Landing Craft Wing Training School
„ <i>Hamla II</i>		
„ <i>Hilsa</i>	—do—	Motor Transport Boat Base
„ <i>Hamlawar</i>	„	Coastal Forces Base
„	Bombay	R.I.N. Component No. 1 Coastal Training Centre
„ <i>Jehangir</i>	Coconada	R.I.N. Component No. 2 C.T.C.

APPENDIX V

SHIPS OF THE R.I.N. IN 1944

<i>Type</i>	<i>Name</i>	<i>Class</i>	<i>Displacement</i>	<i>Speed</i>	<i>Armament</i>	<i>Completion Date</i>
Sloops (7)	<i>Kisna</i>	Mod. Black Swans	1,375	19½	6-4" H.A.L.A.	1943
	<i>Cauvery</i>				2 Bofors	
	<i>Narbada</i>	Modified Bittern	1,300	18½	6-4" H.A.L.A.	1943
	<i>Godavari</i>				2-2 pdr.	
	<i>Sutlej</i>				6-4" H.A.L.A.	
	<i>Jumna</i>				1-0.5 M.G.	
	<i>Hindustan</i>	..	1,190	16	2-4"	1930
Minesweepers (20)	<i>Punjab</i>	..	860-960	16	1-12 pdr.	1942
	<i>Madras</i>	Bathurst	413/939	..	3 Oerlikons	1942
	<i>Bombay</i>	(Fitted LL & SA A/S & M/S)	935	..	3/4 IG or MG	1942
	<i>Bengal</i>	..	..	..	..	1942
	<i>Sind</i>	..	..	..	..	July 1944
	<i>Godwana</i>	..	..	..	..	Sept. 1944
	<i>Assam</i>	..	..	..	..	Nov. 1944

SHIPS OF THE R.I.N. IN 1944—(Contd.)

<i>Type</i>	<i>Name</i>	<i>Class</i>	<i>Displacement</i>	<i>Speed</i>	<i>Armament</i>	<i>Completion Date</i>
A/S-M/S Trawlers (28)	<i>Oudh</i>	Bangor (A/S fitted)	800	16½	1-22 pdr.	
	<i>Biher</i>	..	..	..	3 Oerlikons	
	<i>Orissa</i>	..	..	..	..	
	<i>Khyber</i>	..	..	..	..	
	<i>Kumaon</i>	..	..	..	..	1942
	<i>Rajputana</i>	..	..	..	..	1942
	<i>Baluchistan</i>	..	..	..	..	In Commission
	<i>Kulhiawar</i>	..	..	..	..	1942
	<i>Carnatic</i>	..	..	..	..	1942
	<i>Konkan</i>	..	..	..	..	1942
	<i>Rohilkhand</i>	..	..	..	..	1942
	<i>Malwa</i>	..	..	..	..	July 1944
	<i>Deccan</i>	..	..	..	..	Sept. 1944
	<i>Travancore</i>	Basset	700	11-12	1-12 pdr.	In Commission
	<i>Agra</i>	..	..	..	1 Oerlikon	
	<i>Berar</i>	..	..	..	2-4 L.G.	
	<i>Baroda</i>	..	..	..	..	
	<i>Patna</i>	..	..	..	..	
	<i>Calcutta</i>	..	..	..	..	
	<i>Lahore</i>	..	..	..	..	
	<i>Karachi</i>	..	..	..	..	

SHIPS OF THE R.I.N. IN 1944—(Contd.)

<i>Type</i>	<i>Name</i>	<i>Class</i>	<i>Displacement</i>	<i>Speed</i>	<i>Armament</i>	<i>Completion Date</i>
	<i>Madura</i>	..	..	..	..	In Commission
	<i>Poona</i>	..	..	..	..	
	<i>Amritsar</i>	..	..	..	..	
	<i>Shillong</i>	..	..	..	..	
	<i>Cuttack</i>	..	..	..	..	End 1943
	<i>Lucknow</i>	..	..	..	..	
	<i>Peshawar</i>	..	..	..	..	
	<i>Ahmedabad</i>	..	..	..	..	
	<i>Nagpur</i>	..	..	..	..	January to March 1944
	<i>Dacca</i>	..	..	..	..	
	<i>Chittagong</i>	..	..	..	..	
	<i>Rampur</i>	..	..	..	..	
	<i>Sholapur</i>	..	..	..	..	August 1944
	<i>Nasik</i>	..	..	..	..	
	<i>Multan</i>	..	..	..	..	
	<i>Bareilly</i>	..	..	..	..	
	<i>Cochin</i>	..	..	..	..	8 complete 16 building
	<i>Quetta</i>	..	..	..	..	
	<i>Ambala</i>	..	..	..	..	
	<i>Sialkot</i>	..	..	..	..	
	<i>Fairmiles</i>	110' M.L.	78	15-17	1-3 pdr. 1-2 pdr.	
	24 in No.					

SHIPS OF THE R.I.N. IN 1944—(Contd.)

<i>Type</i>	<i>Name</i>	<i>Class</i>	<i>Displacement</i>	<i>Speed</i>	<i>Armament</i>	<i>Completion Date</i>
<i>H.D.M.L.</i>						
	28 in No.	72' M.L.	40	11½	1-2 pdr. 1 Oerlikon	10 complete 18 building
<i>M.M. Sweepers</i>						
	14 in No.	Local	105	10	..	3 Complete
<i>M.T.B.</i>	40 in No.					
	+6 spare	..	..	..	..	28 in commission
<i>Irrawadi</i>		Aux. A/S Ship	1,804	12	1-4"	remainder due shortly. 1913
<i>Kalavati</i>		,,	2,730	12	1-4" 1 PP	1928
					2 Oerlikons	
<i>Netravati</i>		,,	2,500	12	1-4"	1909
					2 Oerlikons	
<i>Pansy</i>		,,	..	16	1-4"	1916
					2 Oerlikons	
<i>St. Anthony</i>		,,	..	13	1-12 pdr.	1936
					2 Oerlikons	
<i>Cornwallis</i>		,,	1,383	12	1-4", 1-2 pdr.	1917
<i>Dipavati</i>		,,	997	17	1-4"	1936
<i>Ramdas</i>		,,	683	12	1-12 pdr.	1936
<i>Clive</i>		,,	1,748	12	2-4", 1-2 pdr.	1920
					2 Oerlikons	

SHIPS OF THE R.I.N.I.N. 1944 (*Contd.*)

<i>Type</i>	<i>Name</i>	<i>Class</i>	<i>Displacement</i>	<i>Speed</i>	<i>Armament</i>	<i>Completion Date</i>
	<i>Investigator</i>	Aux. A/S Ship	1,572	12	1-2 pdr.	1924
	<i>Hiravati</i>	"	975	14	1-4"	1930
	<i>Ratnagiri</i>	"	..	12	1-12 pdr.	1935
	<i>Sonavati</i>	"	2,600	12	1-4"	
					2 Oerlikons	
	<i>Lawrence</i>		1,210	12	1-2 pdr.	1936
	<i>Rukmanvati</i>	Aux. Patrol Vessel	145	10	2-4"	1919
	<i>Badora</i>	"	..	7	1-12 pdr.	1904
	<i>Ganga</i>	"	..	8	1-12 pdr.	1914
	<i>Nautilus</i>	"	..	8	1-3 pdr.	1931
	<i>Hira</i>	"	..	8	1-12 pdr.	1912
	<i>Lal</i>					
	<i>Moti</i>					
	<i>Nilam</i>					
	<i>Kutubtari</i>	"	ex-persian	Very small		
	<i>Laxmi</i>	"	Gunboats			
	<i>Lilavati</i>	"	..	9	1-12 pdr.	1915
	<i>Satyavati</i>	"	..	9	1-12 pdr.	1918
	<i>Tanjore</i>	"	600	12	1-12 pdr.	1911
		"	600	11	1-12 pdr.	1911
		"	736	11	1-12 pdr.	1941
	<i>Sita</i>	"	..	8	1 Oerlikon	1928
					1-3 pdr.	

SHIPS OF THE R.I.N. IN 1944—(Contd.)

<i>Type</i>	<i>Name</i>	<i>Class</i>	<i>Displacement</i>	<i>Speed</i>	<i>Armament</i>	<i>Completion Date</i>
	<i>Baracuda</i>	Coastal Force	..	..	..	..
	<i>Blinjoe</i>	Base Ship	2,600	10	1-4"	1930
		"			3 Oerlikons	
	<i>Bhadrauati</i>	Salvage Ship	2,067	11	1-4"	1932
	<i>Chinthe</i>	"	..	..	..	..

APPENDIX VI

FLAG OFFICERS COMMANDING ROYAL INDIAN NAVY

- | | |
|--|-----------------------------------|
| 1. Rear Admiral Sir Humphrey Walwyn
KCSI, KCMG, CB, DSO | October 1934 to
November 1934 |
| 2. Rear Admiral A. E. F. Bedford, CB | November 1934 to
November 1937 |
| 3. Vice Admiral Sir Herbert Fitzherbert,
KCIE, CB, GMG | November 1937 to
November 1943 |
| 4. Vice Admiral J. H. Godfrey, CB | March 1943 to
March 1946. |

APPENDIX VII

OFFICERS OF R.I.N., 1941

(*From the Royal Indian Navy List Oct. 1941*)

H.M.I.S. Ratnagiri

Lieutenants R.I.N.R.	S. G. Karmarkar	21 Dec. 1940
	T. Edmond	10 April 1941
Sub-Lieut. R.I.N.R.	H. H. Zaidi	6 Sept. 1939
Sub-Lieut. R.I.N.V.R.	W. Little	23 Dec. 1940
Warrant (Ch.) Engr.	D. B. Daruvala	9 Sept. 1939
R.I.N.R.		
Warrant Engr.	S.R. Pendharkar	6 Sept. 1939
R.I.N.R.	J. Pereira	14 March 1940
	B. R. Mehra	23 Dec. 1940

H.M.I.S. Sophie Marie

Lieutenant R.I.N.R.	D.G.C. Courtney	25 Sept. 1941
Lieutenant R.I.N.V.R.	G.P. Wadley	23 Oct. 1941
Sub-Lieut. R.I.N.R.	K. P. Rahalkar	28 Aug. 1940
Sub-Lieut. R.I.N.V.R.	F. S. Sopher	27 April 1941
Warrant (Ch.) Engr.	W. C. D'Silva	1 Sept. 1939
R.I.N.R.		
Warrant Engrs.	C. G. Cabral	1 Sept. 1938
R.I.N.R.	J. Husain	18 June 1941
	G. Manteiro	5 Nov. 1941

H.M.I.S. Investigator

Lieutenant	G. P. Frazier	30 May 1941
Sub-Lieut.	N. Krishnan	3 July 1941
Sub-Lieuts R.I.N.V.R.	N. H. K. Vacha	15 Nov. 1941
	E. K. Simcock	3 July 1941
Midshipman R.I.N.R.	M. T. Williamson	15 Nov. 1941
Engr. Lieut. Cdr.	D. N. Mukerji	21 Aug. 1941
Engr. Lieut.	D. Singh	11 July 1941
Engr. Sub. Lieut.	A. Hare	30 June 1941
R.I.N.V.R.		
Warrant Writer	K. G. Patil	1 Nov. 1941
Asst. Surg.	H. B. Gibson	15 Jan. 1941

H.M.I.S. Lawrence

Lieut. Cdr. R.I.N.R.	H. E. Pasmore-Edwards	2 July 1941
Lieutenants	W. G. Caltham	
	E. H. H. Maskell	
	J. D. Mody	
Lieut. R.I.N.V.R.	H. M. Darby Shire	13 July 1941
Lieut. R.I.N.R.	J. N. Atkinson	14 July 1941
Sub-Lieut.	R. R. Colls	12 Nov. 1941
Engr. Lieut.	D. Shankar	21 Nov. 1940
Engr. Sub-Lieut.	C. L. Bhandari	8 May 1940
Engr. Lieut. R.I.N.V.R.	M. M. Harper	25 June 1941
Warrant Engr. R.I.N.R.	J. M. Mahimwala	23 Oct. 1941
Gunner	S. W. Loynes	—

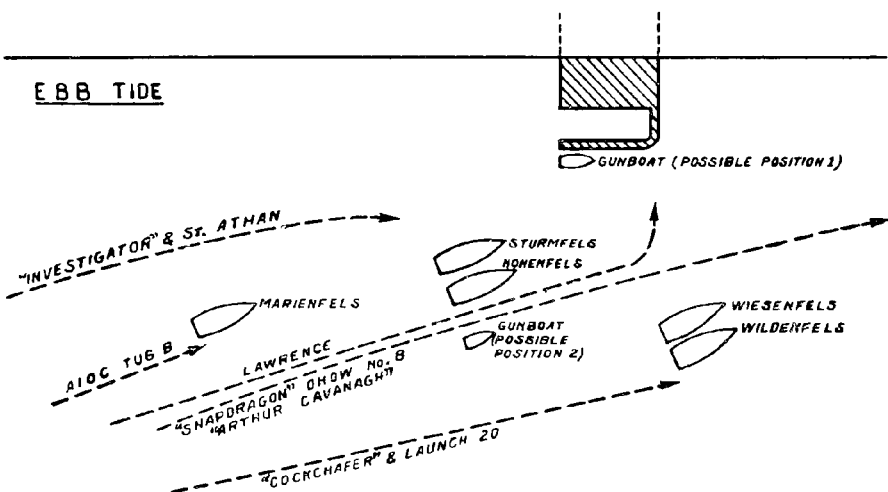
H.M.I.S. Lilavati

Commander	H. E. F. Paine	—
Lieutenants R.I.N.R.	H. J. Gahan	18 Jan. 1941
	N. Nath	10 May 1941
Lieutenant R.I.N.V.R.	W. S. Hay	31 Dec. 1940
Boatswain R.I.N.R.	C. B. Khan	4 Sep. 1939
Warrant (Ch.) Engr.	P. J. Balsara	1 Aug. 1941
R.I.N.R.		
Warrant Engrs.	F. D. Billimoria	14 March 1940
R.I.N.R.	A. L. Rodrigues	14 March 1940

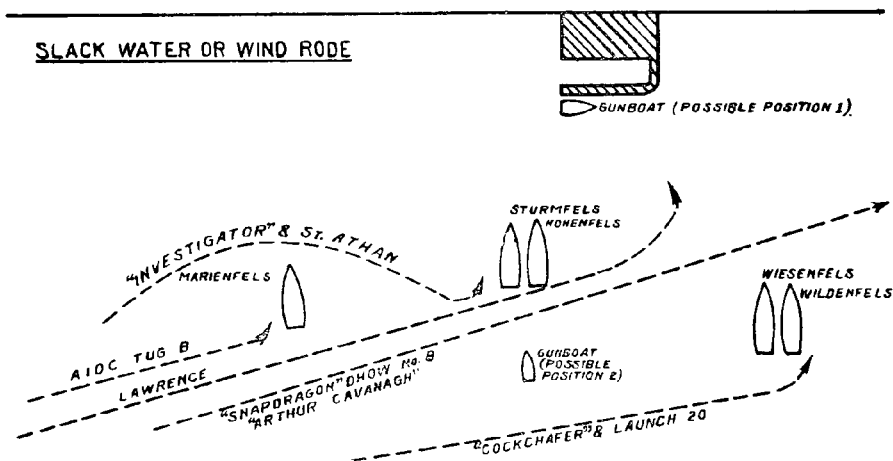
APPENDIX VIII

APPROACH TRACKS FOR SHIPS- OPERATION "BISHOP"

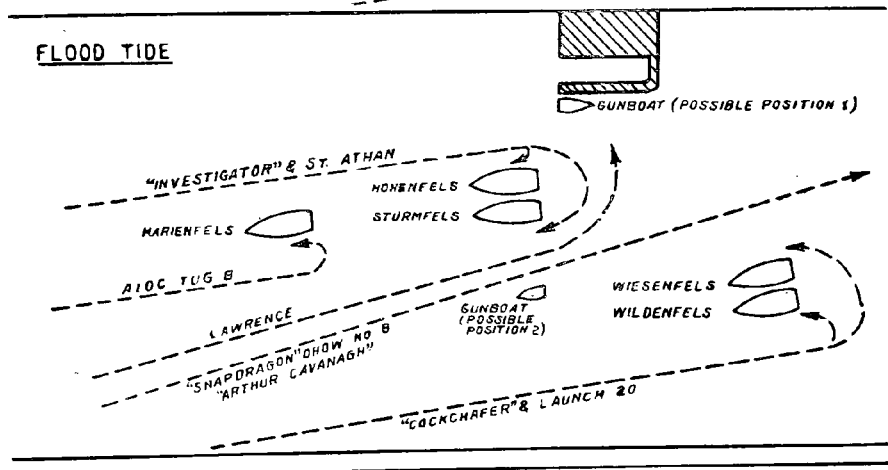
EBB TIDE



SLACK WATER OR WIND ROSE



FLOOD TIDE



APPENDIX IX

SHIPS FOR OPERATION "BISHOP"

<i>Name</i>	<i>Date of Com- pletion</i>	(a) <i>Length</i> (b) <i>Breadth</i> (c) <i>Draught</i>	<i>Armament</i>	<i>Speed</i> (<i>Knots</i>)
H.M.S. <i>Kanimbla</i> (Armed Merchant (as Cruiser) A.M.C.)	1939	(a) 468' 8" (b) 66' 3" (c) 23' 0"	7-6" 2-3" H. A. 2-Lewis	17
H.M.A.S. <i>Yarra</i> (Sloop)	1935	(a) 266' 3" (b) 36' 0" (c) 9' 6"	3-4" QF-HA/LA 4-3 pdr. 1-5" M. 1-V.M.G. 2-Lewis	16.5
H.M.S. <i>Shoreham</i> (Sloop)	1931	(a) 281' 4" (b) 35' 0" (c) 11' 11"	2-4" H.A. 1-5" M. 1-Lewis (Twin)	15.5
H.M.S. <i>Falmouth</i> (Sloop)	1932	(a) 288' 4" (b) 35' 0" (c) 10' 5"	1-4" QF. 1-0" H.A. 1-4 pdr. 2-Lewis 1-5 M.G.	15
H.M.I.S. <i>Lawrence</i> (Sloop)	1919	(a) 241' 0" (b) 34' 0" (c) 11' 3"	2-4QF. 2-2 Pdr. Pom Pom 6-Lewis	13.0
H.M.I.S. <i>Investigator</i> (Sloop)	1907	(a) 232' 3" (b) 38' 0" (c) 13' 3"	1-4" 1-2 pdr. Pom Pom	13.0
H.M.S. <i>Snapdragon</i> (Corvette)	1940	(a) 205' 3" (b) (c) 16' 1"	1-4" 1-5 (4M) 2-Hotchkiss	16.0
H.M.I.S. <i>Lilavati</i>		(a) 175' 6" (b) 27' 7" (c) 9' 6"	1-12 pdr. 2- Lewis	12.5
H.M.S. <i>Arthur</i> <i>Kavanagh</i>		(a) (b) 15' 6" (c)	1-12 pdr. HA/LA 2- Lewis 2- Hotchkiss	9.0
H.M.S. <i>Seabelle</i> (Armed Facht)	1929	(a) 264' 0" (b) 33' 6" (c) 11' 6"	1-3 HA/LA 1- M.5(4) 2- Lewis	12.5

<i>Name</i>	<i>Date of Com- pletion</i>	<i>(a) Length (b) Breadth (c) Draught</i>	<i>Armament</i>	<i>Speed (Knots)</i>
H.M.S. <i>Cockchafer</i> (Gunboat)	1916	(a) 227' 6" (b) 36' 0" (c) 4' 6"	2-6" 1-3 HA 8- Lewis	15.5
<i>Zenobia</i> (River Steamer)		(a) 225' 0" (b) 52' 0" (c) 4' 0"	1-3" pdr. 2- V.B.M. G.	9.0
<i>Ihsan</i> (River Steamer)		(a) 150' 3" (b) 34' 10" (c) 4' 0"	1-3 pdr. 2- N.B.M.G.	8.0

<i>Name</i>	<i>Fuel Capacity</i>	<i>Fuel Consumption</i>	<i>Endurance</i>
<i>Kanimbla</i>	781 Oil	$\frac{3}{4}$ T—Hr.	12,000-12 Knots
<i>Yarra</i>	317 Oil		9,000-10 Knots
<i>Shoreham</i>	280 Oil	23 T—day 12 $\frac{1}{2}$	7,400-10 Knots
<i>Falmouth</i>	310 Oil		7,400-10 Knots
<i>Lawrence</i>	152 Oil		1,600-10 Knots
<i>Investigator</i>	292 Oil		1,630-10 Knots
<i>Snapdragon</i>	233 Oil	1.3T—16 Knots 0.63T—10 Knots	3,000-17 Knots 5,480- 8 Knots
<i>Lilavati</i>	50 Coal	1 T—Full Speed 12 $\frac{1}{2}$ Cwt—Economical	575-12 Knots
<i>Arthur</i>	130 Coal	10 T day—8 Knots 12 T day—9 Knots	
<i>Kavanag</i>			
<i>Seabelle</i>	150 Oil	.56T Hr.—10 Knots .6T Hr.—12 Knots	4,000-10 Knots 3,000-12 Knots
<i>Cockchafer</i>	54 Oil		
<i>Zenobia</i>	82 Oil	150 Gal/Hour	
<i>Ihsan</i>	46 Oil	95 Gal/Hour	

APPENDIX X

H.M.I.Ss "SUTLEJ" AND "JUMNA"—OFFICERS

(from the Royal Indian Navy List Jan. 1942)

H.M.I.S. *Sutlej*

Captain	P. A. Mare	
Eng. Lieut. Comdr.	L. H. Steadman	
Lieutenants	H. M. Clark	
	F. J. C. Curtis	
Lieutenant R.I.N.V.R.	A. J. Howard	19 Dec. 40
Sub-Lieut.	G. A. G. Williams	
Sub-Lieut. R.I.N.R.	H. A. Agate	26 Nov. 41
Eng. Lieut. R.I.N.R.	B. K. Gupta	
Eng. Sub-Lieut.	J. R. Legcod	
Paymaster Lieut.		
R.I.N.V.R.	J. J. St. L. Carson	
Gunner	W. A. Bennett	7 Dec. 40
Commissioned		
Telegraphist	J. Filby	
Warrant Electrician	W. A. S. Lusmore	9 April 41

H.M.I.S. *Jumna*

Commander	W. R. Shewring	16 Nov. 40
Lieut. Commander	G. P. Ranson	5 Jan. 41
Lieutenant R.I.N.V.R.	F. W. R. Saxty	27 Nov. 41
Lieutenant R.I.N.V.R.	A. J. V. Lecocq	26 Jan. 41
Lieutenant	R. H. H. Jackson	16 Nov. 40
Sub-Lieut.	R. W. P. Yates	14 July 41
Eng. Lieut. Comdr.	A. M. F. MacDonald	16 Nov. 40
Eng. Lieut. R.I.N.R.	P. K. Mukerji	6 Oct. 41
Eng. Sub-Lieut.	J. A. G. Ellison	16 Nov. 40
Paymaster Lieut.		
R.I.N.V.R.	A. Pickup	16 Nov. 40
Gunner	J. L. Smallman	7 Dec. 40
Warrant Telegraphist	G. P. H. Harrison	12 Feb. 41
Warrant Electrician	F. A. Billing	11 April 41
Surg. Lieut. R.N.V.R.	H. A. Fleming	1 July 41

APPENDIX XI

TRAINING ESTABLISHMENTS AND MAJOR WORKS PROJECTS (1944) OF THE R.I.N.

No.	Name	Function	Location	Details of training carried	Accommodation	Cost in lakhs of rupees
1.	H.M.I.S. <i>Himalaya</i>	Gunnery School	Karachi	Long and short "G" courses Ratings non-substantive courses. Warrant Officers Administered H.M.I.S. <i>Lawrence</i> (Gunnery firing ship)	Officers—66 Warrant Officers—8 Ratings—570	42.00
2.	H.M.I.S. <i>Bahadur</i>	Boys Training Establishment	Karachi	18 months' New Entry Training for Boys including sea training in H.M.I.S. <i>Investigator</i>	Officers—14 Warrant Officers—28 Ratings—733	6.50
3.	H.M.I.S. <i>Dilawar</i>	Tender to H.M. I.S. <i>Bahadur</i>	Karachi	New Entry Boys spent six months here before going to H.M.I.S. <i>Bahadur</i>	Officers—8 Warrant Officers—7 Ratings—370	
@4.	H.M.I.S. <i>Chamak</i>	Radar School	Karachi	Officers and Ratings courses. Administered H.M.I.S. <i>Madras</i> (radar training ship)		12.35

APPENDIX XI—(Contd.)

<i>No.</i>	<i>Name</i>	<i>Function</i>	<i>Location</i>	<i>Details of training carried</i>	<i>Accommodation</i>	<i>Cost in lakhs of rupees</i>
@5.	H.M.I.S. <i>Valsura</i>	Torpedo School	Jamnagar	Officers and Ratings courses in torpedoes and electrics	Officers—33 Warrant Officers—3 Ratings—288	15.0
@6.	—	P. and R.T. School	Karachi Attached to H.M.I.S. <i>Bahadur</i> . It was intended to construct a separate P. and R. T. School at Karachi	Officers and Ratings courses		new construction not commenced
@7.	H.M.I.S. <i>Talwar</i>	Communications School	Bombay	Long and short C courses for Officers and Ratings and WRINS Trained communications ratings for the Royal Navy	Officers—160	9.00

APPENDIX XI—(Contd.)

No.	Name	Function	Location	Details of training carried	Accommodation	Cost in lakhs of rupees
@8.	H.M.I.S. Akbar	New Entry Kolshet, Ratings Train- near Bombay ing Establish- ment		Six months' New Entry Training (including sea training Discipli- nary courses for candidates for temporary R.I.N.V.R. commis- sions (full course of 12 weeks for Executive candidates). Discipli- nary courses for Chief Petty Offi- cer Schoolmasters. Royal Indian Navy Cookery School in H.M.I.S. Akbar	Officers—87 Warrant Officers—20 Ratings—3,480	48.00
9.	—	Anti-Gas School	H.M.I.S. Akbar Kolshet	Officers and Ratings	—	0.007
@10.	H.M.I.S. Dalhousie	Royal Indian Navy Depot	Bombay	Administered Fire Fighting and Damage Control schools. Train- ed Officers and Ratings in Regu- lating Branch duties.	—	—
@11.	H.M.I.S. Feroze	Officers Train- ing Establish- ment	Bombay	Divisional Seamanship and Navi- gation WRINS Officers Divi- sional course	Officers—220 Ratings—200	1.00

APPENDIX XI—(Contd.)

<i>No.</i>	<i>Name</i>	<i>Location</i>	<i>Function</i>	<i>Details of training carried</i>	<i>Accommodation</i>	<i>Cost in lakhs of rupees</i>
12.	H.M.I.S. <i>Machimar</i>	Anti-Submarine School	Versova, near Bombay	Officers and Ratings Anti-Submarine and Harbour Defence co-operations. Trains Anti-Submarine Ratings for the Royal Navy	Officers—68 Ratings—337	9.00
13.	Fort Barracks	Hostilities Only Ratings Barracks	Bombay	Supply and Secretariat Training	—	Existing
14.	—	Dockyard Expansion	Bombay Dockyard	—	—	32.30
15.	—	Detention Barracks	Elephanta Island Bombay	—	Officers—6	1.30
16.	—	Loop Defences	Bombay	—	—	8.50
17.	—	Royal Indian Navy Hospital	Sewri, Bombay	—	Officers, Matron and Sisters—17	4.00
18.	—	Sick Berth Attendants; Training Establishment	Royal Indian Navy Hospital, Sewri, Bombay	New Entry Training partly carried out at Sewri and partly at Castle Barracks	Under construction	

APPENDIX XI—(Contd.)

<i>No.</i>	<i>Name</i>	<i>Function</i>	<i>Location</i>	<i>Details of training carried</i>	<i>Accommodation</i>	<i>Cost in lakhs of rupees</i>
@19.	—	Fire Fighting and Damage control schools	Bombay	Officers and Ratings courses	—	1.00
@20.	—	Tactical Train- ing unit	Bombay	Short courses for officers in Anti- Submarine Tactics.	Existing	0.10
21.	—	Naval Air Ope- rations Room	Bombay	—	—	4.00
22.	Marble Hall	WRINS Hostel	Bombay	—	Officers—40 WRINS—150	0.66
23.	H.M.I.S. <i>Hanla</i>	Landing Craft Wing Depot	Versova, near Bombay (in process of be- ing transfer- red to Kara- chi)	—	Officers—160 Ratings—1,600	6.00
*24.	H.M.I.S. <i>Hamlawar</i>	Combined Training Centre	Marve, near Bombay	—	Officers—125 Ratings—1,000	Cost met from Army funds
*25.	—	Landing Craft Base	Sassoon dock Bombay	—	Ratings—750	15.50

APPENDIX XI—(Contd.)

<i>No.</i>	<i>Name</i>	<i>Function</i>	<i>Location</i>	<i>Details of training carried</i>	<i>Accommodation</i>	<i>Cost in lakhs of rupees</i>
*26.	H.M.I.S. <i>Cheetah I</i>	Coastal Craft Trombay Base	Trombay	—	Officers—48 Ratings—182	34.00
*27.	H.M.I.S. <i>Cheetah II</i>	Torpedo Depot Trombay Workshop and Storage Depot	Trombay	—	Officers—5 Ratings—150	13.50
@28.	H.M.I.S. <i>Shiwaji</i>	Mechanical Training Establishment	Lonavla	Engine Room Artificers, Technical training of candidates for Temporary R.I.N.V.R. Commissions	Officers—54 Ratings—1,042	25.00
29.	—	Royal Indian Navy School of Photography	Lonavla	Ratings as Photographers	Construction not commenced	0.50
@30.	H.M.I.S. <i>Jahanara</i>	WRINS New Entry Establishment	Ahmednagar	New Entry Courses for WRINS		Cost not from Army funds
31.		Coastal Forces Re-fuelling Bases	Deogarh Karwar Mangalore	—	—	6.00
32.	H.M.I.S. <i>Venduruthy</i>	Naval Base	Cochine	—	Officers—36 Ratings—320	28.00

APPENDIX XI—(Contd.)

No.	Name	Function	Location	Details of training carried	Accommodation	Cost in lakhs of rupees
*33.	—	Royal Indian Navy Landing Craft Base	Cochin	—	Officers— 135 Ratings—1,000	13.21
*34.	H.M.I.S. <i>Hanila</i>	Landing Craft Training School	Mandapam	—	Officers— 225 Ratings—3,928	21.58
*35.	H.M.I.S. <i>Hilsa</i>	Coastal Craft Base	Mandapam	—	Officers— 34 Ratings—202	15.54
36.	H.M.I.S. <i>Adyar</i>	Naval Base	Madras	—	Officers— 48 Ratings—714	18.00
37.	H.M.I.S. <i>Jehangir</i>	Combined Training Centre (Naval Wing)	Cocanada	—	Officers— 100 Ratings—1,000	Cost met from Army funds
38.	H.M.I.S. <i>Circars</i>	Naval Base Naval Air Operation Room	Vizagapatam	—	Officers— 125 Ratings—1,364	52.82
39.	—	De-gaussing Range	Vizagapatam	—	—	1.30
40.	H.M.I.S. <i>Hooghly</i>	Gunnery Training Establishment and Barracks	Calcutta	Gunnery	Ratings—400	10.00

APPENDIX XI—(Contd.)

<i>No.</i>	<i>Name</i>	<i>Function</i>	<i>Location</i>	<i>Details of training carried</i>	<i>Accommodation</i>	<i>Cost in lakhs of rupees</i>
41.	—	Officers' Mess	Calcutta (a) at junction of Circular Road and Lord Sinha Road (b) at Behala	—	Officers—183	4.50
@42.	H.M.I.S. <i>Nalini</i>	WRINS New Entry esta- blishment	Calcutta	New Entry Courses for WRINS	—	Cost met from Army funds
43.	—	Civnaval Trai- ning Centre	Pilani, Jai- pur State	Pre-entry Artificers	Naval Training for Ratings—300	Existing
44.	H.M.I.S. <i>Sita</i>	Rest Camp and Holding Depot for personnel of H.M.I. Ships operating from bases in Ceylon	Moratuwa, within easy reach of Colombo	—	—	—

APPENDIX XI—(Contd.)

<i>No.</i>	<i>Name</i>	<i>Function</i>	<i>Location</i>	<i>Details of training carried</i>	<i>Accommodation</i>	<i>Cost in lakhs of rupees</i>
45.	H.M.I.S. <i>Patunga</i>	Advance Base for Coastal Forces	Chittagong	—	—	—

Establishments marked thus* were later transferred to the Royal Navy.
Establishments marked thus @ trained officers as well.

APPENDIX XII

PROGRESSIVE RATE OF INTAKE OF MEN IN THE R.I.N. DURING THE WAR

	<i>Special Service Ratings</i>			<i>H.O. Ratings</i>	<i>Boys & Apprentices attaining Man's Rate</i>	<i>Recovery of Deserters</i>	<i>Total Intake</i>
	<i>R.I.N. Direct Recruitment</i>	<i>Recruiting through Inter Service Recruiting Org.</i>	<i>Personnel transferred to R.I.N. from Army (L.C. Wing)</i>				
1939-31 Dec.	125	—	—	1,367	49	—	1,541
1940-31 March	166	—	—	279	42	—	487
30 June	278	—	—	85	18	—	381
30 Sept.	263	—	—	387	32	—	682
31 Dec.	261	—	—	234	—	3	498
1941-31 March	785	—	—	197	21	1	1,004
30 June	446	—	—	261	34	—	741
30 Sept.	843	—	—	332	2	—	1,177
31 Dec.	556	—	—	328	52	—	936
1942-31 March	863	290	—	499	11	2	1,665
30 June	319	345	—	645	139	—	1,448
30 Sept.	322	1,297	—	698	51	7	2,375
31 Dec.	292	1,849	—	601	85	39	2,866
1943-31 March	367	2,394	930	929	46	48	4,714
30 June	130	1,784	647	289	60	89	2,999
30 Sept.	150	1,614	546	495	13	116	2,934
31 Dec.	83	1,707	183	542	81	129	2,725
1944-31 March	71	2,014	—	284	87	100	2,556
30 June	55	2,428	—	118	57	107	2,765
30 Sept.	12	1,883	—	127	84	96	2,202
31 Dec.	28	1,673	—	227	83	150	2,161
1945-31 March	24	1,653	—	178	71	215	2,141
30 June	8	2,070	—	63	87	223	2,451
*30 Sept.	21	2,089	—	36	42	310	2,498
<i>Total</i>	6,468	25,090	2,306	9,201	1,247	1,635	45,947

*Recruitment was suspended immediately on the cessation of hostilities, but certain recruits already in Reception Camps continued to be enrolled for a few weeks.

APPENDIX XIII

MANNING PROGRESS OF R.I.N. DURING THE WAR

	<i>Target</i>	<i>Borne Strength</i>	<i>Deficiency</i>
1939			
Outbreak of War-3 Sept.	1,722	1,475	247
31 December	2,954	2,849	105
1940			
31 March	3,326	3,133	192
30 June	3,460	3,340	120
30 September	4,388	3,568	820
31 December	5,316	3,716	1,600
1941			
31 March	5,861	4,521	1,340
30 June	6,486	4,950	1,536
30 September	8,128	5,819	2,309
31 December	10,124	6,452	3,672
1942			
31 March	11,866	7,813	4,053
30 June	13,661	8,661	5,000
30 September	15,585	10,585	5,000
31 December	16,185	12,762	3,423
1943			
31 March	21,121	16,326	4,795
30 June	23,745	19,176	4,569
30 September	23,042	20,183	2,859
31 December	25,274	21,528	3,746
1944			
31 March	28,132	22,867	5,265
30 June	29,081	24,228	4,853
30 September	28,241	24,526	3,715
31 December	28,534	25,143	3,391
1945			
31 March	28,903	25,925	2,978
30 June	28,448	27,434	1,014
End of War—15 Aug.	29,706	27,651	2,055
30 September	27,933	26,532	1,401

APPENDIX XIV

HONOURS & AWARDS

BURMA NAVAL OPERATIONS 1942-1945

ROYAL INDIAN NAVY

Distinguished Service Order

Captain M.H. St. L. Nott., O.B.E., R.I.N.

Distinguished Service Cross

Lieut.-Comdr. St. J. H. Heather, R.I.N.V.R.
Lieut.-Comdr. T.H.L. MacDonald, R.I.N.V.R.
Lieut. Syed Mohammed Ahsan, R.I.N.
Lieut. K. J. Baber, R.I.N.R.
Lieut. A. H. Russell, R.I.N.V.R.
Lieut. C. M. Cockle, R.I.N.V.R.
Lieut. A. I. Long, R.I.N.V.R.
Lieut. T. Locke, R.I.N.V.R.

Distinguished Service Medal

C.P.O. Iftikhar Ahmed Ansari
C.P.O. Nur Mohammed
C.P.O. Sher Afzal
P.O. Allayar Khan
P.O. Baba Bawa
P.O. Mohammed Akram
P.O. Sakharam Gopal
P.O. Dady Hirtibhai
P.O. Hamza Miyan Balkhote
Ldg. Seaman Mohammed Rahim
Ldg. Seaman Maula Baksh
Ldg. Seaman Mohd. Obeidullah
Ldg. Telegraphist F. A. Rajarathanam
Ldg. Cook L. Lobo
Able Seaman Abdul Latif
Able Seaman Mohammed Ali
Able Seaman Mumara Khan
Stoker Charayeph Paily Joseph
Stoker Ranganathan
Stoker Mustan

Ord. Signalman H. A. C. Fisher
 Ord. Signalman A. Balasubramanian
 Sick Berth Attendant Amarnath Bose

Indian Distinguished Service Medal

C.P.O. Fali Sorabji
 Able Seaman Punna Khan
 Able Seaman Babu Lal
 Ord. Signalman Shadi Khan

Mention in Despatches

Comdr. F. F. Harvey, R.I.N. Comdr. K. R. U. Todd, R.I.N.,
 Lieut. Comdr. H. M. Darbyshire, R.I.N.V.R. Lieut-Comdr.
 S. Walker, R.I.N.V.R., Lieut-Comdr. A. J. Howard, R.I.N.V.R.,
 Lieut W. J. M. Teale, R.I.N. Lieut. E. W. Oakley, R.I.N.V.R.
 Lieut. A. R. S. Pritchard-Davies, R.I.N.V.R. Lieut. A. H. Russell
 R.I.N.V.R. Lieut. A. R. Bentley, R.I.N.V.R. Lieut. R. S. Pike,
 R.I.N.V.R., Lieut. R. H. Kilbey, R.I.N.V.R., Lieut. (E) R. D.
 Tong, R.I.N.V.R. Lieut. (E) P. O. Gionnic, R.I.N.V.R., Lieut.
 A. J. Adam, R.I.N.V.R., Lieut. I. W. G. Alcock, R.I.N.V.R.,
 Lieut. B. C. Farthing, R.I.N.V.R. Lieut. J. Kent, R.I.N.V.R.
 Lieut. P. R. Lawrence, R.I.N. Lieut. K. H. MacKinnon, R.I.N.
 V.R., Lieut. P. R. Sindall, R.I.N.V.R. Sub-Lieut. A.M.G. Brown,
 R.I.N.V.R., Sub-Lieut. (E) J. R. C. Phillips, R.I.N.V.R., Sub-
 Lieut. A. G. Pike, R.I.N.V.R., Sub-Lieut. T. M. R. Watt, R.I.N.
 V.R., Sub-Lieut. T. J. Myrrip, R.I.N.V.R., Sub-Lieut. D. B. Crowe,
 R.I.N.V.R. (Posthumous), Midshipman W.A. Carston, R.I.N.V.R.,
 C. P. O. Anegonby Rajaram Rao, C. P. O. Marilia Joseph Fernan-
 des, C. P. O. Suddala Muthu Perumal, P. O. L. Woodfall, P. O.
 Vikitadi Narayan Rao, P. O. J. Verghese, P. O. Fazl Bux, P. O.
 Mohammed Ibrahim, P. O. Mohammed Salim Khan, P. O. Fuzal
 Illahi, Ldg. Seaman Mohammed Alam, Ldg. Seaman Habibullah
 Khan, Ldg. Seaman Valerian D'Souza, Ldg. Seaman Sardar Khan,
 Ldg. Seaman Abdul Rashid, Ldg. Seaman Gurbachan Singh,
 Ldg. Seaman Subab Ali, Ldg. Seaman Mohammed Ishaq, Ldg.
 Telegraphist Salil Moysham, Ldg. Stoker Venkata Techalam,
 Able Seaman H. Robert, Able Seaman P. Samuel, Able Seaman
 Mohammed Ayab, Able Seaman Gul Baz, Able Seaman Noroz
 Khan, Able Seaman Ghulam Mohammed, Able Seaman Moha-
 mmed Roshem, Stoker Amar Nath Pathak, Stoker Mohammed
 Afsal Shah, Stoker Mohammed Safiullah, Ord. Seaman T. R. W.
 Cooper, Ord. Seaman Ratnam Pillay Natarajan, Ord. Signalman
 D. Mathew, Ord. Telegraphist Koatteei Narayan Nair.

APPENDIX XV

NAMES OF OFFICERS BORNE IN SHIPS WHICH TOOK PART IN THE BURMA OPERATIONS

(*From the Royal Indian Navy List June 1945*)

H.M.I.S. Ahmedabad

Lieutenant R.I.N.R.	Z. N. Mirza	27 Jan.	45
Lieutenant R.I.N.V.R.	H. B. Dubash	4 Sept.	44
Sub Lieut. R.I.N.R.	R. R. Cooper	7 June	44
Sub-Lieut. R.I.N.V.R.	M. A. Aziz	25 Jan.	45
Midshipman R.I.N.V.R.	A. C. Rebello	26 Feb.	45
Lieut. (E) R.I.N.R.	D. B. Daruwalla	3 Oct.	43

H.M.I.S. Assam

Lieut. Comdr. R.I.N.R.	A. A. Britain	12 Aug.	45
Lieutenant R.I.N.R.	J. S. Mehra, M.B.E.	12 Feb.	45
Lieutenant R.I.N.V.R.	E. V. Battle	28 March	45
Sub-Lieuts R.I.N.V.R.	N. G. L. Davis	15 Feb.	45
	E. Fischer	27 July	45
	C. V. Nedungadi	12 May	45
	C. O. Grove	31 Jan.	45
Lieut. (E) R.I.N.R.	E. J. Russel	8 July	45
Wt. Engineer R.I.N.R.	E. M. Spring	5 Feb.	45

H.M.I.S. Bengal (Bathurst Class)

Lieut. Comdr. R.I.N.V.R.	W. L. Scurr	11 Sept.	44
Lieutenant	J. Smart	24 May	45
Lieutenant R.I.N.V.R.	A.N. Chackerbutty	11 March	45
Lieutenant R.I.N.R.	G. W. Jones	4 April	45
Sub-Lieut. R.I.N.R.	R. W. Major	7 July	45
Sub-Lieuts R.I.N.V.R.	I. S. Benett	24 Oct.	44
	N. M. Todywalla	25 May	45
Lieutenant (E)	B. S. Baswan	23 Dec.	44
Sub-Lieut. (E) R.I.N.V.R.	I. J. Fredman	8 March	45

H.M.I.S. Bihar (Bangor)

Lieutenant R.I.N.R.	J. Vendrell	19 Aug.	44
Lieutenant R.I.N.V.R.	H.B.Mel.Williamson	9 March	45
Sub-Lieuts R.I.N.V.R.	L. A. Lobo	21 May	45
	N. Singh	18 April	45
	D. M. Douglas	20 March	45

Lieut. Cdr. (E) R.I.N.V.R.	F. B. Wilhelmsen	
Sub-Lieut. (E) R.I.N.V.R.	J. M. Smeddle	17 March 45

H.M.I.S. Bombay (Bathurst Class)

Lieut. Comdr. R.I.N.R.	F. W. R. Saxty	1 Feb.	45
Lieutenants	C. S. Smith		
	H.E. Sadler	20 March	45
Sub-Lieutenant R.I.N.R.	H.J.H. Lansen	31 Dec.	44
Sub-Lieuts R.I.N.V.R.	P. Yagnik	25 April	45
	S.M. Uddi		
Lieut. (E) R.I.N.V.R.	C. J. Howell	21 Nov.	44
Sub-Lieut. (E) R.I.N.V.R.	S. A. Bharucha	29 March	45

H.M.I.S. Carnatic

Lieutenant	J. D. Mody	8 Aug.	44
Lieutenant R.I.N.R.	W. E. Henderson	8 Aug.	44
Lieutenant R.I.N.V.R.	R. A. G. Iston	15 Jan.	44
Sub-Lieut. R.I.N.V.R.	D. R. H. Iland	1 Jan.	44
Midshipman R.I.N.V.R.	K. Ahmed	28 July	44
Lieutenant (E) R.I.N.R.	A. Cowley	5 June	45
Sub-Lieut. (E) R.I.N.V.R.	G. F. Quinn	5 June	44

H.M.I.S. Cauvery

Commander	F. F. W. Harvey	10 May	44
Lieutenants	R. Williams	12 May	44
	K. M. Nanavati	18 Dec.	44
Lieutenants R.I.N.V.R.	E. F. Irvine	13 Oct.	43
Lieutenants R.I.N.V.R.	H. Clegg	20 July	45
	S. H. Badcock	20 July	45
Sub-Lieutenants R.I.N.V.R.	J. W. P. Yates	13 Oct.	43
	L. E. O. Lunel	24 July	45
Lieut. Comdr. (E)	G. W. A. Burgess	13 Oct.	43
Lieutenant (E) R.I.N.R.	W. G. Keith	13 Oct.	43
Surgeon Lieut. R.I.N.V.R.	H. B. Sinha	1 July	44
Paymaster Lieut. R.I.N.V.R.	R.S. Knott	13 Oct.	43
Gunner	J. Tappenden	19 Oct.	44
Electr. Lieut. R.I.N.V.R.	S. S. Dasgupta	28 Dec.	44

H.M.I.S. Deccan

Lieut. Comdr. R.I.N.R.	G. J. Mohan	11 Jan.	45
Lieutenant R.I.N.R.	K. P. Naire	1 Feb.	45
Sub-Lieut. R.I.N.R.	P. C. Eayrs Williams	4 Aug.	45
Sub Lieuts R.I.N.V.R.	D. D. Hamilton	26 May	45
	E. A. Holmes	25 Feb.	45

Midshipman R.I.N.V.R.	R. Miranda	22 March	45
Lieutenant (E)	P. A. Sebley	29 April	45
Sub-Lieut. (E) R.I.N.V.R.	H. Porte	9 Dec.	44

H.M.I.S. Godavari

Lieut. Commanders	H. M. S. Choudri,	10 Feb.	45
	M.B.E.		
	L. B. More	26 April	45
Lieutenant	W. Gul	24 July	45
Lieutenants R.I.N.R.	A. Chakraverti	5 March	45
	G. Tinley	24 July	45
Lieutenants R.I.N.V.R.	S. A. Raug	17 Feb.	45
	P. J. Lamb	22 June	43
Sub-Lieutenants R.I.N.R.	G. H. Selby Smith	22 June	43
	P. J. Lace	28 March	45
Lieut. Commander (E)	A. Briggs	13 Sept.	44
Lieutenant (E) R.I.N.V.R.	R. C. Bull	10 April	45
Electrical Lieut. R.I.N.V.R.	S. Sen	17 March	45
Lieut. (S) R.I.N.V.R.	D. B. Ram	11 July	45
Sub-Lieut. (S) R.I.N.V.R.	E. Ahmed	24 April	45
Surgeon-Lieut. R.I.N.V.R.	R. Rashid	12 March	45
Gunner	R. U. Khan	20 March	45

H.M.I.S. Jumna

Commander R.I.N.R.	H. A. Tod	7 Aug.	45
Lieutenants	R. S. Smith	13 April	45
	M. A. Bromley	4 May	44
	S. Jones	24 May	45
	J. A. St. C. Strange	10 July	44
Lieutenant R.I.N.V.R.	E. C. Kurvulla		
Sub-Lieuts. R.I.N.V.R.	S. S. Sondhi	3 Aug.	45
	U. S. Dawson	8 May	44
Lieut. Cdr. (E) R.I.N.V.R.	A. B. Brown	1 June	54
Sub-Lieut. (E) R.I.N.V.R.	J. C. Crosby	21 Aug.	45
Elect. Lieut. R.I.N.V.R.	A. Robertson	1 June	42
Lieut. (S) R.I.N.V.R.	R. B. Aibara	1 Sept.	44
Surgeon Lieut. R.I.N.V.R.	V. G. Daftry	22 Jan.	45
Gunner	F. Khan	17 March	44
Warrant Telegraphist	G. Bone	7 June	44

H.M.I.S. Kathiawar

Lieutenant Commander	A. K. Chatterji	23 Oct.	43
Lieutenants R.I.N.R.	R. J. Ward	24 March	45
	W. B. Inches	29 Nov.	44

Lieutenant R.I.N.V.R.	E. Paul	28 July	44
Sub-Lieuts R.I.N.V.R.	G. Singh		
	S. W. J. Norton	28 July	44
Lieut. Cdr. (E) R.I.N.V.R.	F. A. Ord	23 April	45
Sub-Lieut. (E) R.I.N.V.R.	H. H. A. Cummins	17 April	45

H.M.I.S. Kistna

Commander R.I.N.R.	S. G. Karmarkar		
	M. B. E.	30 Nov.	44
Lieutenants	A. Wylie	5 April	45
	E. K. Simcock	4 Nov.	44
	J. G. Lawrance	15 Sept.	43
Lieutenants R.I.N.V.R.	L. W. Rose	18 April	45
	H. S. Gulati	1 May	45
	A. M. Lal	11 April	45
Midshipman R.I.N.R.	P. J. D. Scott	30 Nov.	45
Lieut. Comdr. (E) R.I.N.R.	N. Cowly	18 Aug.	43
Lieutenant (E) R.I.N.V.R.	E. Longfield Moore	29 May	45
Surgeon Lieut. R.I.N.V.R.	E. N. Kishore		
Lieutenants (S) R.I.N.V.R.	I. J. Jukes	6 Sept.	44
Gunners	H. Courtney	11 April	45
	Noor Khan		
Gunner (T)	L.E. Styles, D.S.M.	18 Aug.	43
Warrant Telegraphist	M. G. Sullivan	18 Aug.	43

H.M.I.S. Konkan

Lieut. Comdr. R.I.N.R.	R. S. David	28 June	45
Lieutenant R.I.N.V.R.	J. J. Butters	27 March	45
Sub-Lieuts R.I.N.R.	L. V. Hunter	7 Oct.	44
	C. N. Badhe	25 Jan.	45
Sub-Lieut. R.I.N.V.R.	E. P. Jolly	30 June	45
Lieut. (E) R.I.N.R.	J. C. Keenan	7 Sept.	43
Sub-Lieut. (E) R.I.N.V.R.	C. C. Lawson	18 Jan.	45
Boatswain (A/S)	Hyat Ali	27 June	45

H.M.I.S. Kumaon

Lieutenants R.I.N.R.	U. J. S. Chopra	5 July	45
	S. H. Sharma	9 Jan.	45
Sub-Lieut. R.I.N.R.	A. E. Chipperfield	20 March	45
Sub-Lieuts R.I.N.V.R.	W. A. Wright	5 Jan.	45
	G. M. Khan	13 April	45
	S. A. Hussain	24 June	44
Lieut. Comdr. (E) R.I.N.R.	W. A. Sullen	2 May	44
Lieut. (E) R.I.N.V.R.	B. Chucker Butty	4 Dec.	44

H.M.I.S. Llanstephan Castle

Captain	S. J. Thomson, CIE	24 March	45
Lieut. Comdr. R.I.N.R.	K. J. White	24 March	45
Lieutenants	D. Whyte	24 March	45
	L. Savory	11 June	45
Lieutenants R.I.N.R.	K. Lahiri	21 May	45
	C. E. Mcready	5 Feb.	45
	G. J. Dhurandhar	14 April	45
Lieutenants R.I.N.V.R.	F. G. Wernham	24 March	45
	A. G. C. Bennett		
	N. H. K. Vacha	20 April	45
Commander (E) R.I.N.R.	V. Jones	24 March	45
Lieut. Comdr. (E) R.I.N.R.	F. E. Monk	15 March	45
Lieutenants (E) R.I.N.V.R.	D. C. Elkins	3 April	45
	A. E. Mallittee	6 April	45
	B. E. Lloyd	21 March	45
	D. K. Robertson	16 March	45
	J. E. Burgess	23 March	45
Sub-Lieut. (E) R.I.N.V.R.	N. E. Wright	28 March	45
	H. W. Lawton	24 March	45
Elctr. Lieut. (E) R.I.N.V.R.	I. S. A. Jesudian	9 March	45
Lt. Comdr. (S) R.I.N.V.R.	M. J. Maclaren	7 May	45
Lieutenants (S) R.I.N.V.R.	C. J. Gasper	15 Feb.	45
	J. R. Mills	24 March	45
	M. A. Khan	19 March	45
Sub-Lieut. (S) R.I.N.V.R.	N. M. Seth	9 May	45
Lieut. (S) R.I.N.V.R.	B. R. Pasrcha	29 March	45
Surg. Lt-Cdr. R.I.N.V.R.	W.S.D.O. Malley	24 March	45
Cd. Boatswain R.I.N.V.R.	C. H. Edwards	24 March	45
Gunner	Muzzaffar Khan	24 March	45

H.M.I.S. Narbada

Captain	H.E.F. Palne	19 March	45
Lieutenants	W. J. M. Teale	27 May	44
	O.H.Mantle, M.B.E.	22 April	45
	E. S. Joshua	21 March	45
	P. T. Edwards	10 July	44
	A. E. Donnelly	9 Nov.	44
Lieutenants R.I.N.V.R.	R. K. Raisinghani	15 April	45
	C. P. Chandler	10 April	45
Sub-Lieut. R.I.N.V.R.	H. L. W. Upton	28 March	45
Midshipman R.I.N.V.R.	G. Singh	24 Feb.	44

Commander (E)	A.M.F. MacDonald	19 Sept.	44
Lieutenant (E)	T. N. Kochar	18 April	45
Elects Sub-Lt. R.I.N.V.R.	B. N. Srinivassan	19 April	45
Surg. Lt. R.I.N.V.R.	A. V. Bal	11 Aug.	44
Lieut. (S) R.I.N.V.R.	H. E. Gawthorne	16 April	45
Sub-Lt. (S) R.I.N.V.R.	P. C. Ganguli		
Gunner	M. Shamsher	4 April	45

H.M.I.S. Orissa

Lieutenants R.I.N.R.	G. W. Farrow	8 July	44
	G. Saldanha	24 Sept.	44
	D. N. Sen	20 Dec.	44
Lieutenant R.I.N.V.R.	C. G. Bengtsson	8 Oct.	44
Sub-Lieut. R.I.N.R.	N. James	13 July	44
Lieutenant (E) R.I.N.R.	R. R. Peebles	27 June	45
Sub-Lieuts (E) R.I.N.V.R.	C. L. Lasky	30 Sept.	44

H.M.I.S. Oudh

Lieutenant	R.R.H. Jackson	4 Nov.	44
Lieutenant R.I.N.R.	Inder Singh	27 June	45
Sub-Lieut. R.I.N.R.	A.M.Henniker-Gotley		
Sub-Lieuts R.I.N.V.R.	G. A. Isani	27 June	45
	A. G. Atkins	22 Dec.	44
Lieutenant (E) R.I.N.R.	A. S. Sahi	2 April	45
Sub-Lieut. (E) R.I.N.V.R.	A. L. Redford	21 July	44

H.M.I.S. Patna

Lieutenant R.I.N.R.	K. J. Baber, D.S.C.	28 Feb.	45
Lieutenant R.I.N.V.R.	T. Lindsay	8 July	45
Sub-Lieut. R.I.N.R.	J. W. Lobo	14 April	45
Sub-Lieut. R.I.N.V.R.	T. A. Oliver	6 Feb.	44
Midshipman R.I.N.V.R.	D. J. P. Rath	2 Sept.	44
	Hyat Khan	22 March	45
Wt. Engineer R.I.N.R.	D. Sampson	18 May	45

H.M.I.S. Poona

Lieutenants R.I.N.V.R.	G. F. Ruffle	8 March	45
	B. S. Luckins	28 June	45
Sub-Lts R.I.N.V.R.	A. K. Khambatta	27 June	45
	L. E. Merriman	28 Nov.	44
Lieutenant (E) R.I.N.V.R.	J. W. Lasky	15 Jan.	45

H.M.I.S. Punjab

Lieutenants	A. V. Baker	13 June	43
	V.J.A. Valladares	18 May	45

Lieutenant R.I.N.R.	D. St. J. Cameron	3 March	43
Sub-Lieuts. R.I.N.V.R.	E.A.D. Margenout	23 Feb.	45
	J. D. Cooper	18 July	43
Midshipman R.I.N.V.R.	L. J. Arlaud	23 Sept.	43
Lieutenant (E) R.I.N.R.	T. M. Walls	5 Oct.	43
Sub-Lieut. (E) R.I.N.R.	K. H. Patel	28 Jan.	45

H.M.I.S. Rajputana

Lieut. Commander	A. Chakraverti	5 Oct.	44
Lieutenant R.I.N.R.	C. B. Sutherland	26 June	45
Lieutenant, R.I.N.V.R.	W. C. Goldthorpe	3 April	45
Sub-Lieut. R.I.N.V.R.	H. K. Mukherji	2 Aug.	45
Sub-Lieuts. R.I.N.V.R.	C. P. Ramchandran		
	T. Sivasankaran	16 April	45
Lieutenant (E) R.I.N.R.	Tara Berry	4 June	44
Surgn-Lieut. R.I.N.V.R.	K. N. Baria		

H.M.I.S. Rohilkhand

Commander	G. Bailey	24 Feb.	45
Lieutenant R.I.N.R.	K. K. Mukerji	4 April	44
Lieutenants R.I.N.V.R.	H. R. Brown	3 March	45
	J. Harrison	16 March	45
Sub-Lieut R.I.N.R.	R. M. Hall	12 July	44
Midshipman R.I.N.V.R.	C. H. R. Donne	16 March	45
Lieut-Comdr. (E) R.I.N.R.	A. C. Kinross	27 Jan.	43
Sub-Lieut. (E) R.I.N.V.R.	F. N. Lee	24 Feb.	45
Lieutenant (S) R.I.N.V.R.	P. G. Gokhle	26 May	45

H.M.I.S. Sutlej

Captain	J. Ryland	23 April	45
Lieutenants	G. W. Forrest	9 Nov.	44
	A. R. Khan	6 Feb.	45
Lieutenant R.I.N.R.	L. A. Jackson	17 Jan.	45
Lieutenant R.I.N.V.R.	R. U. Bajwa	6 June	45
Sub-Lieuts. R.I.N.V.R.	R. S. Das	14 Jan.	45
	R. B. Khajotia	12 June	45
	C. A. Mare	22 Jan.	45
Lieut-Commander (E)	E. D. Ford	1 June	44
Lieutenant (E)	R. A. Esmonde	30 May	45
Elects. Lieut. R.I.N.V.R.	R. L. Stokoe	1 July	44
Surgn. Lieut. R.I.N.V.R.	S. P. Bhacca	5 Jan.	45
Lieutenant (S) R.I.N.V.R.	L. R. Jayaraman	15 Jan.	45
Sub-Lieut. (Sp) R.I.N.V.R.	B. K. Rakshit	11 July	45

Gunner	C. R. J. Barnard	2 Oct.	44
St. Telegraphist	M. Din	1 Jan.	45

H.M.I.S. Barracuda

Commander R.I.N.R.	L. G. Bingham R.D.	21 Apr.	45
Lieutenant R.I.N.R.	M. L. Barua	19 Sept.	44
Lieutenants R.I.N.V.R.	G. W. Thomas	6 Jan.	43
	J. R. Meagher	10 Oct.	44
	J. R. Hamilton	6 Aug.	45
Sub-Lieut. R.I.N.V.R.	P. S. Jenamejeyan	21 April	45
Commander (E) R.I.N.R.	G. D. Aitken	17 May	43
Lieutenant (E) R.I.N.R.	H. B. B. Pederson	19 Dec.	42
Sub-Lieuts (E) R.I.N.R.	E. Long	6 Oct.	43
	F. Whalley	5 Oct.	43
	D. A. O. Cadleigh	26 Nov.	44
Warrant Engr. R.I.N.R.	M.L. Chandiramani	30 Sept.	44
Lt. Comdr. (S) R.I.N.V.R.	P. I. Edwardes	30 Oct.	44
Lieuts. (S) R.I.N.V.R.	D. C. Wilson	27 Jan.	45
	H. D. Selby	23 Nov.	44
Gunners	Sarwar Khan	1 Oct.	44
	Abdul Majid	15 Feb.	45
Warrant Writer	J. B. Fernandes	10 March	43
Surgn. Lieut. R.I.N.V.R.	M. A. Chaudhary	20 Oct.	44

H.M.I.S. Lady Myrtle

Sub-Lieuts. R.I.N.V.R.	R. D. Lamond	19 May	44
	E. E. Cohen	14 Sept.	44

H.M.I.S. Sabri

Sub-Lieut. R.I.N.V.R.	A. J. D. Abreu	22 Sept.	44
Mid. R.I.N.V.R.	H. N. Driver	26 April	44

APPENDIX XVI

NAMES OF OFFICERS BORNE IN THE COASTAL FORCES OF THE BURMA OPERATIONS

49th M.L. Flotilla

Senior Officer, Flotilla	Lieut. R.I.N.V.R., A. J. Adam
Flotilla Engineer Officer	Lieut (E) R.I.N.V.R., D. G. Johnson
M.L. 380	Sub-Lieuts R.I.N.V.R., D.C. Kapoor, J. G. Buckle
M.L. 381	Lieuts R.I.N.V.R., D. W. E. Westecot, D. R. Grant Sub-Lieuts R.I.N.V.R., A. W. M. Brett, M. C. Ballal
M.L. 382	Lieut. R.I.N.V.R., N. H. Davies Sub-Lieut R.I.N.V.R., R. Daber Mid. R.I.N.V.R., N. W. Herbert
M.L. 383	Lieut. R.I.N.V.R., J. H. A. Brakes Sub-Lieuts R.I.N.V.R., M. Theiry, P. T. Jenkins
M.L. 829	Lieut. R.I.N.V.R., C. Birdsell Sub-Lieuts R.I.N.V.R., W. H. Vessey, E. G. S. Smith
M.L. 831	Sub-Lieuts R.I.N.V.R., D. C. Woods Scawen, W. R. Hopkins Husson, M. K. Totton
M.L. 832	Lieut. R.I.N.V.R., A. Mac Queen Sub-Lieuts R.I.N.V.R., N. B. Menon, D. P. Chaplin
M.L. 840	Sub-Lieuts R.I.N.V.R., J. Milles, W. A. Carston Mid. R.I.N.V.R., A. E. Young
Flotilla Additional	Lieut. R.I.N.V.R., T. M. B. Watt Sub-Lieuts R.I.N.V.R., E. M. D. Wallace, V. L. Billing

55th M.L. Flotilla

Senior Officer, Flotilla	Lieut. Comdr. R.I.N.V.R., N. J. Bradley
Flotilla Engineer Officer	Lieut. (E) R.I.N.V.R., L. R. Gillesp

M.L. 438	Sub-Lieuts R.I.N.V.R., H. H. Wood Stoddard, D. W. Ireland
M.L. 439	Mid. R.I.N.V.R., D. A. Richardson Lieut. R.I.N.V.R., G. Stewart Sub-Lieuts R.I.N.V.R., W. S. E. Purch, D. F. English
M.L. 440	Sub-Lieuts R.I.N.V.R., E. Heap, H. M. Whittington
M.L. 441	Sub-Lieuts R.I.N.V.R., N.H. Sethna, A. J. Lemonjian Mid. R.I.N.V.R., S. Raj
M.L. 474	Sub-Lieuts R.I.N.V.R., R. D. Perciva, K. Thomas Jacov
M.L. 475	Lieut. R.I.N.V.R., P. Mordin Sub-Lieut. R.I.N.V.R., I. G. Bowers
M.L. 476	Lieut. R.I.N.V.R., P. R. Lawrence Sub-Lieuts R.I.N.V.R., A. C. Evans, L. Beilby
M.L. 477	Sub-Lieuts R.I.N.V.R., T. J. Harman, M. F. Barclay, A. M. G. Brown
Flotilla Additional	Lieuts R.I.N.V.R., D. A. Henry, R. E. Nicholas Mid. R.I.N.V.R., Z. Aghar

56th M.L. Flotilla

Senior Officer Flotilla	Lieut. R.I.N.V.R., J. Kent.
Flotilla Engineer Officer	Lieut. (E) R.I.N.V.R., W.T. Rodrigues
M.L. 390	Sub-Lieut. R.I.N.V.R., J.H. Birtwistle Mid. R.I.N.V.R., B. R. Woolfe
M.L. 412	Lieut. R.I.N.V.R., J. Kent Sub-Lieuts R.I.N.V.R., P. A. R. Jordan, H. Gripaies
M.L. 413	Lieut. R.I.N.V.R., L. C. A. Green Sub-Lieuts R.I.N.V.R., W. R. Dean, P. M. D. Usher
M.L. 416	Lieut. R.I.N.V.R., P. F. Johnson Sub-Lieut. R.I.N.V.R., A.W.M. Walton Mid. R.I.N.V.R., A. H. West
M.L. 417	Lieut. R.I.N.V.R., R. H. Kilbey Sub-Lieut. R.I.N.V.R., D. E. T. Sheppard Mid. R.I.N.V.R., T.E.S. Shircore

M.L. 419	Lieut. R.I.N.V.R., H.G.R. Percival Sub-Lieuts R.I.N.V.R., C. A. Royan, D. N. W. Knight
M.L. 843	Lieut. R.I.N.V.R., J. B. Carrol Sub-Lieut. R.I.N.V.R., P.S.H. Andrews Mid. R.I.N.V.R., I. W. Upshon
M.L. 844	Lieut. R.I.N.V.R., A. R. S. Pritchard Davies Sub-Lieut. R.I.N.V.R., R. Pereira Mid. R.I.N.V.R., I. P. Brown
M.L. 872	Lieut. R.I.N.V.R., H. H. Stewart Sub-Lieuts R.I.N.V.R., J. M. Storrow, A. J. Evans
Flotilla Additional	Sub-Lieuts R.I.N.V.R., N. V. Chandrasekharial, R. Locke R. Young

120th H.D.M.L. Flotilla

Senior Officer, Flotilla	Lieut. R.I.N.V.R., H. S. Holt
Flotilla Engineer Officer	Lieut. (E) R.I.N.V.R., G. Seongal
H.D.M.L. 1061	Sub-Lieuts R.I.N.V.R., G. Mousinho, A. M. Arklie
H.D.M.L. 1073	Sub-Lieut. R.I.N.V.R., D. P. Fletcher Mid. R.I.N.V.R., D. H. Day
H.D.M.L. 1079	Sub-Lieuts R.I.N.V.R., G. R. Keay, N. A. Irani
H.D.M.L. 1084	Lieut. R.I.N.V.R., L. F. Osmund Sub-Lieut. R.I.N.V.R., A. Ross
H.D.M.L. 1125	Sub-Lieuts R.I.N.V.R., S. H. Ibne Ali, K. Pershad
H.D.M.L. 1148	Sub-Lieuts R.I.N.V.R., G. N. Lokre, R. A. Milner
H.D.M.L. 1151	Sub-Lieut. R.I.N.V.R., S.C. R. Reading Mid. R.I.N.V.R., T. C. Pavledis
H.D.M.L. 1261	Sub-Lieut. R.I.N.V.R., A.K.Y. Kazi Mid. R.I.N.V.R., S. C. Raghubir
H.D.M.L. 1262	Sub-Lieuts R.I.N.V.R., A. D. Cornell, S. E. Levi
Flotilla Additional	Mid. R.I.N.V.R., L. Gomes

121st H.D.M.L. Flotilla

Senior Officer, Flotilla	Lieut. R.I.N.V.R., R.O.C. Christiansen
Flotilla Engineer Officer	Lieut. (E) R.I.N.V.R., U. J. Seervai
H.D.M.L. 1115	Lieut. R.I.N.V.R., P. G. Mungavin Sub-Lieut. R.I.N.V.R., G. M. Shea

H.D.M.L. 1117	Lieut. R.I.N.V.R., R.O.C. Christiansen
H.D.M.L. 1118	Sub-Lieut. R.I.N.V.R., N.D. Freemantle
H.D.M.L. 1120	Sub-Lieuts R.I.N.V.R., G.C. Pavledis, L. B. Timmins
Flotilla Additional	Sub-Lieut. R.I.N.V.R., B. E. Wright Mid. R.I.N.V.R., I. Jackson
	Sub-Lieut. R.I.N.V.R., T. A. T. Lodhi

122nd H.D.M.L. Flotilla

Senior Officer, Flotilla	Lieut. R.I.N.V.R., W. T. Mackinnon
Flotilla Engineer Officer	Lieut. (E) R.I.N.V.R., F.S. Mehta
H.D.M.L. 1111	Sub-Lieuts R.I.N.V.R., R.C.J. Morton, R. K. Hill
H.D.M.L. 1114	Sub-Lieuts R.I.N.V.R., R. R. M. Rao, K. A. Gantzer
H.D.M.L. 1116	Lieuts R.I.N.V.R., W. T. Mackinnon, D. W. Jolley
Flotilla Additional	Sub-Lieut. R.I.N.V.R., D. K. Bhattacharya

130th H.D.M.L. Flotilla

Senior Officer, Flotilla	Lieut. R.I.N.V.R., T. E. deAlmeida
Flotilla Engineer Officer	Lieut. (E) R.I.N.V.R., H. Roberts
H.D.M.L. 1109	Sub-Lieuts R.I.N.V.R., A. J. Grey, N. C. Jerath
H.D.M.L. 1110	Sub-Lieuts R.I.N.V.R., A. Hanif, J. E. Palim
H.D.M.L. 1112	Sub-Lieut. R.I.N.V.R., C.W.D. Winter Mid. R.I.N.V.R., D. W. Levett Yeats
H.D.M.L. 1113	Sub-Lieut. R.I.N.V.R., R.H. Edwards Mid. R.I.N.V.R., T. P. Barr
Flotilla Additional	Mid. R.I.N.V.R., T. O. Whistford

136th H.D.M.L. Flotilla

Senior Officer, Flotilla	Lieut. R.I.N.V.R., H. D. Rowe
H.D.M.L. 1265	Lieut. R.I.N.V.R., H. D. Rowe Mid. R.I.N.V.R., T. C. Ball
H.D.M.L. 1266	Sub-Lieuts R.I.N.V.R., R. N. Bobb, I. S. Bhatti
H.D.M.L. 1267	Sub-Lieuts R.I.N.V.R., D.A. Gee, C.J.R. Joyce
H.D.M.L. 1268	Sub-Lieut. R.I.N.V.R., J. R. Cobban Mid. R.I.N.V.R., M. T. Scott
Flotilla Additional	Sub-Lieuts R.I.N.V.R., G. P. Hem- brough, K. Ghosh

APPENDIX XVII

SELECTION OF PERSONNEL DIRECTORATE, GENERAL HEADQUARTERS, INDIA

(R.I.N. Officers)

(From the Royal Indian Navy List June 1945)

Asstt. Director Selection of Personnel (Navy)

Lt.-Cdr. R.I.N.R., A.J. Dain ... 8 April 44

Asstt. to A.D.S.P. (Navy)

Sub-Lt., R.I.N.V.R., B.S. Rekhi ... 1 March 45

Dy. President, No. 56 Services Selection Board

Lt.Cdr. R.I.N.R., R.D. Katari ... 27 May 45

Group Testing Officer, No. 52 Services Selection Board

Lt. R.I.N.V.R., P. Parkin ... 25 Oct. 44

Group Testing Officer, No. 56 Services Selection Board

Sub-Lt. R.I.N.V.R., J.K.A. Marker ... Aug. 45

Psychological Tester, No. 66 Services Selection Board

2/0 WRINS, J. Gomez ... 16 Oct. 44

Personnel Selection Officer

Lt. (Sp) R.I.N.V.R., S. J. Savainathan 6 Nov. 44

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In addition, the author has made use of some secondary published sources for describing the maritime heritage of India and for filling up gaps here and there in the story of the Royal Indian Navy during the war. An illustrative list of these secondary sources which have been consulted is also given below.

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Navy. The outbreak of war in 1939 compelled further extensive expansion when new types of vessels were added to the fleet and some merchant ships were also armed.

During the war years, the R.I.N. was entrusted with various combatant duties which it performed with valour and skill in the Bay of Bengal and the Red Sea, as also in the Mediterranean and the Atlantic. As a result, it emerged at the end of the war as a small but fully developed navy in the real sense of the word.

The book describes in lively detail the navy's exploits in different waters, organisational changes at home, expansion and Indianisation of the personnel during the years.

The book also contains some vivid and rare photographs of the events and personalities mentioned.