PART IV

OTHER SUBJECTS

CHAPTER 38

HOSPITAL SHIPS

DURING the 1914-18 War sea transport posed problems of great magnitude for Australia, for traffic of casualties through the Mediterranean and round the Cape called for special arrangements. In spite of the development of hospitals in forward and semi-forward areas, many ships were needed to carry patients from the Middle East to the United Kingdom and to Australia. These ships were known as "white" or "black" in the military vernacular of the day. "White" ships were brought under the protection of international conventions, and comprised fully equipped floating hospitals like the *Karoola* and the *Kanowna,* and the more temporary "hospital carriers" which could transport and deal with the less serious casualties. The "black" ships were sea ambulance transports, capable of carrying large numbers of lightly ill and convalescents in relative comfort; they sailed without red cross protection. Fast "black" ships could brave a solitary journey. The hazards of the rest were lessened by travelling in convoys, a mixed blessing, for all who have travelled in convoys know that irritating slow ship which determines the rate of all. There were instances of British "black" transports which were later officially converted to "white" ships. Both types suffered attack on a number of occasions, but all the patients who returned to Australia by these varied forms of sea transport arrived safely.

During the war of 1939-45 conditions experienced by Australians were in the main very different in the two chief areas of action, the Middle East and the South-West Pacific. The problems related to hospital ships depend upon geographical conditions, the magnitude of the forces involved, the tempo and extent of military action, the number and types of battle and non-battle casualties, the kind of medical service demanded of the ships' staffs, and the mutual arrangements made by Allied national powers. Further, the growing use of aircraft in evacuation introduces a most significant factor in estimating the need for hospital ships.

A word may be said about arrangements for the mutual use of hospital ships by Allies. Cooperation was full and valuable during the war, and when Allies and in particular members of the British Commonwealth were fighting in the same areas they often travelled in each other's ships. The antipodean partners reserved space for each other so that New Zealanders might use Australian ships, and Australians travelled also on the *Maunganui,* the New Zealand hospital ship. The British, who were involved in large-scale operations over wide fields, advocated pooling of hospital ships, but this was hardly practicable where Australian and New Zealand ships were concerned, except over short runs in delimited zones. In addition there was that spirit of independence which is a tenet of the Australian people, who always wished their men to travel in Australian ships, and to be treated in Australian hospitals by Australians. This of

course was often not possible, and Australians were grateful for the generous help of the British in this regard and the invaluable and irreplaceable protection given by the fighting ships which, often at heavy cost to themselves, escorted and also carried so many soldiers of the dominions.

Fitting and Equipping Hospital Ships. Before considering the careers of ships some attention must first be paid to the nature, structure and function of hospital ships. There were four fully-equipped hospital ships at the service of the Australian armed forces: *Manunda* and *Wanganella,* converted from relatively new and well-found passenger liners; *Oranje,* a palatial liner most generously converted, run and maintained by the Netherlands Government; and, in the Pacific war, *Centaur,* lost through enemy action on her first full-duty trip. The problems of conversion of liners to hospital ships are manifold, and their solution demands the special knowledge of a body of technical experts of the navy, the merchant marine, and the army, and of the administrative and practising branches of medicine.

In the selection of a ship for the purposes of a transport and a hospital there are certain common requirements. The size is important, as the draught of a big ship may be a bar to full mobility: she may not be able to approach shallow waters or lie up in shallow anchorage, and this complicates loading and unloading. *Manunda* and *Wanganella,* 9,000 to 10,000 tons gross, were of ideal size. Speed should be sufficient to give a quick turn-round, at least 14 knots. Motor ships have advantages: diesel-engined craft have ample electric power at their disposal, and can use exhaust heat to distil fresh water. The water-supply is important. Average warships need 10 tons a day for each 100 men, but the *Manunda* used 50 tons daily for each 100 men, with another 50 tons a week for the laundry, a vital factor on a hospital ship. An emergency boiler unit produced another 10 to 15 tons a day, but these smaller distillation plants were not always very successful. The *Wanganella* had similar restrictions in the water-supply, and needed more than the 825 tons she could carry. The *Oranje* carried no more than this but could make 300 tons of fresh water a day. The range of a hospital ship may thus be limited by its water-supply, as its average requirements are not less than 30 to 35 gallons a head a day, allowing an extra day's ration each week for laundry.

Ventilation was also important. These ships used punkah-louvre systems, but additional ventilation was needed in some parts, especially in the wards in the tropics or during rough weather when ports were closed. In the operating theatre some form of air conditioning, or an exhaust system with special diffusion arrangements designed to avoid draughts was required. Fully equipped hospital ships included a special theatre block, comprising the theatre, a plaster room, and X-ray department, all constructed as one unit. Proper lighting was another essential feature, as maximum illumination had to be secured without glare, preferably using an indirect system. A movable light was necessary in the theatre, and special care had to be taken in installing it so that it could occupy elect positions for operating without being disturbed by movement of the ship.

The cots used were according to a standard pattern found satisfactory in other ships. The value of swinging cots has been debated. They were useful in special fracture cases, being of course capable of being immobilised, but on the whole fixed cots such as those in the *Oranje* were very satisfactory. Both single and double-tiered types were used: the latter were most useful when the upper one was removable. Wherever possible some three feet of space round each cot was allowed. Accommodation in the ships was chiefly in wards, but in the *Oranje* some blocks of cabins were retained by desire of the owners and were used with doors removed. Special wards were provided for orthopaedic cases, patients seriously ill, and those with tuberculosis, infectious diseases, mental affections and venereal disease. Special observation rooms and strong rooms were provided for psychiatric cases.

Certain other features were common to all hospital ships, such as separate dining accommodation for convalescent patients, and staff, standard diets of four simple types, and sufficient room for occupational therapy and exercise.

Most important were the arrangements for embarkation and disembarkation. Winches, and special stretchers such as the Neil Robertson stretcher and the Stokes litter permitted the handling of the helpless without disturbance, but after their arrival on the deck or at sea doors there still remained the problem of their transfer to wards. This was a question to be answered differently on each ship, and in some instances considerable structural alterations were needed. Broad approaches, minimum use of stairs, which must be of easy gradient, passenger lifts to the various decks, and careful planning were necessary to ensure an uninterrupted flow of traffic. It was repeatedly found that delays in embarkation of sick and wounded were far more likely to be due to slow diffusion of the patients through the ship than to tardy delivery of stretchers on the deck. Occasionally, as on the *Oranje,* lifts were too short to take an unmodified stretcher; an additional power lift was found necessary in this ship.

Finally, the possibility of rapid abandonment of a hospital ship had to be considered: apart from deliberate hostile action a ship might strike a mine or be involved in other marine accident. The lifeboats provided on liners were insufficient in number, for many patients could not help themselves, and they took longer to load, and occupied more space than people who were fully mobile. Up to 50 per cent increase on normal requirements for rescue gear was not excessive on a hospital ship; this could be supplied by extra lifeboats, but rafts and Carley floats were found preferable.

The *Manunda, Wanganella* and *Centaur* were taken over by arrangement between the Australian Government and the owners for conversion as hospital ships, and the alterations were carried out under direction of the Royal Australian Navy. All the various interests involved were represented, and the experts concerned worked together with great harmony and efficiency. The only unfortunate incident was a serious hold-up in the sailing of the *Manunda* on her first trip, due to an industrial dispute

by engineers. Experience showed that it was highly desirable that the military commander of the ship should be at hand during the period of conversion to advise on the myriad problems which would only be solvable by one who had to run the ship as a hospital.

It is convenient here to remark on the method of control adopted on Australian hospital ships. The ship was a military unit whose senior medical officer was the officer commanding troops, and he administered the unit as an army general hospital of from 300 to 600 beds. The navy carried out maintenance and determined the ship's movements from the point of view of security and safety, and the Merchant Navy was responsible for the sailing of the ship.

The *Oranje* was unique in its method of control, as the use of this ship with its entire cost of maintenance while carrying Australian and New Zealand sick and wounded between the Middle and Far East to Australia was a gift from the Netherlands East Indies Government. Further details of administration will be given later. Particulars of the conversion and use of the *Centaur* may also be left for later description, as this ship belonged to a different period of the war.

During the period 1940-42 Australian sick and wounded were transported over both short and long sea routes. To and from Australia and the Middle East the distances were long, but risks were slight, though some uncertainty was felt about whether raiders might interfere with protected ships. These trips were made by hospital ships or returning transports according to the needs of the sick or unfit, and contrasted with the short but hazardous journeys along the North African coast and to and from Greece and Crete. The hospital ships were of course self-contained as regards staff, but the sea ambulance transports returning to Australia were staffed from an A.A.M.C. pool, which also helped to staff unarmed and defensively armed transports in the Mediterranean. Medical and nursing staffs for outward-bound transports were simply supplied from those travelling to join the A.I.F. in the Middle East. The use of large ships for the carriage of troops necessitated a break of journey in India, or later, Colombo, and therefore arrangements were made at these ports for hospital attention.

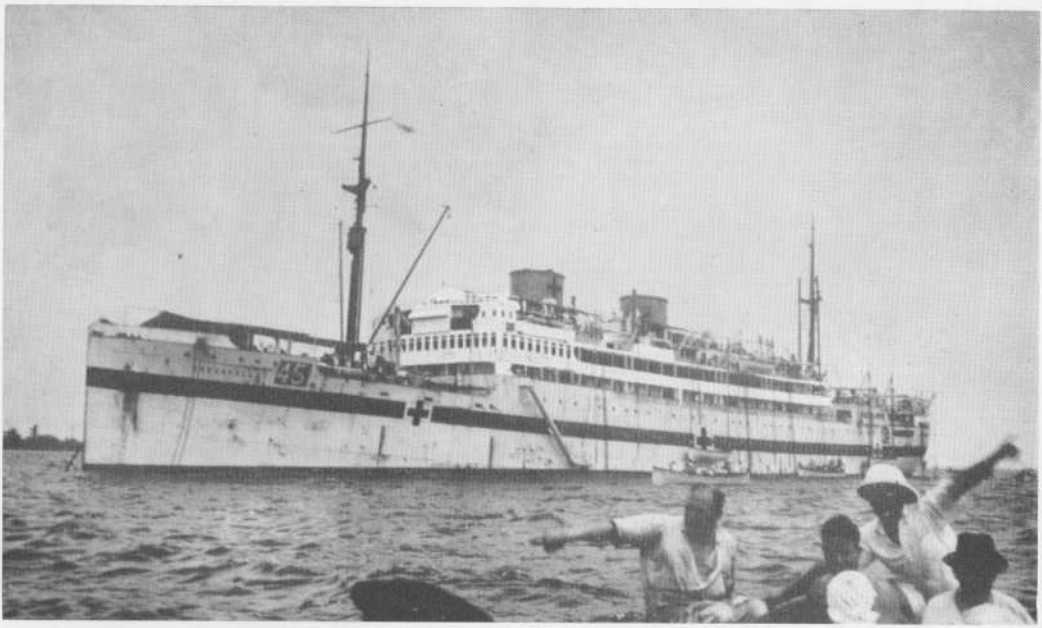
For short runs in the Mediterranean British hospital ships were often used for Australian casualties, there being no Australian hospital ships on this run. In addition defensively armed ships were employed, and other transports. A brief account may be here interpolated of some of the experiences of members of the Australian medical services on these ships. During the first Libyan campaign there were few air ambulances, and sea transport was most valuable, as it saved wounded men the discomfort of a long and usually rough journey by road. Sea distances in this part of the Mediterranean were relatively short, and there was a high degree of moral ascendancy in the area, in spite of the strong Italian fleet and the ever-present danger of air attack.

(Australian War Memorial)

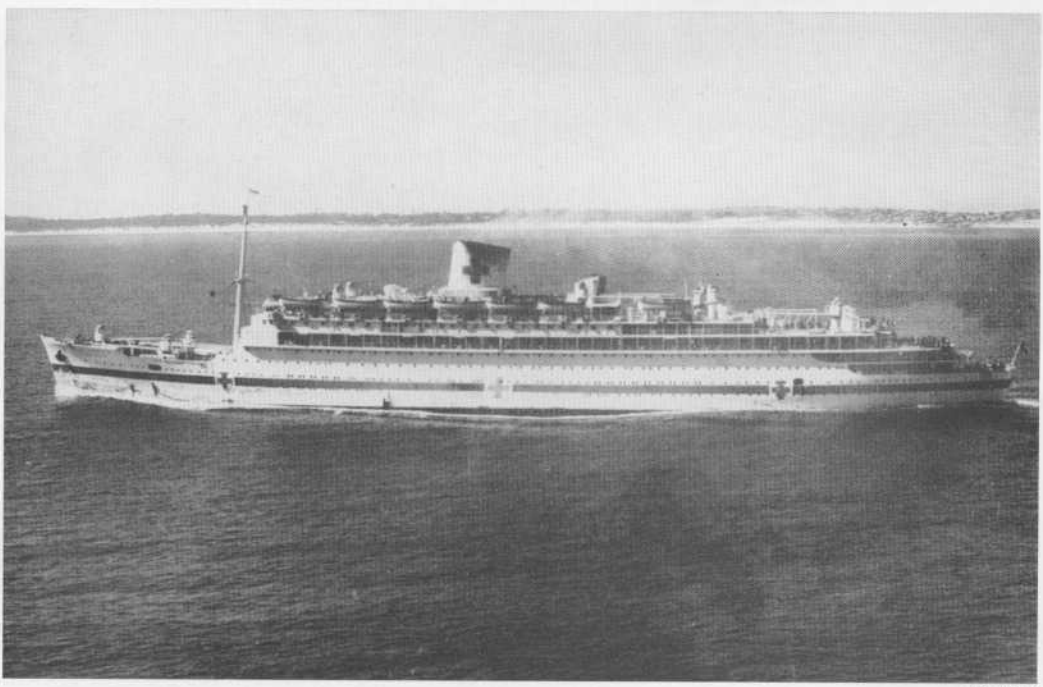
A conference of the Controller and Assistant and Deputy Assistant Controllers of the A.A.M.W.S. held in Melbourne in 1945. Seated round table from extreme left they are: Lieut-Colonel M. S. Douglas (Controller), Major A. R. Appleford (Victoria), Major M. C. Roche (Queensland), Captain M. M. Langsford (South Australia), Major H. F. Meyer (Western Command), Captain I. D. Cox (Tasmania), Captain L. W. Yates (Northern Territory), Major J. M. Snelling (New South Wales), Major R. M. Davidson (L.H.Q.) and Captain S. C. Perry (Northern Territory).

(Australian War Memorial)

Members of the A.A.N.S. and A.A.M.W.S. leaving a hospital ship in a lifeboat for Tarakan, Borneo.

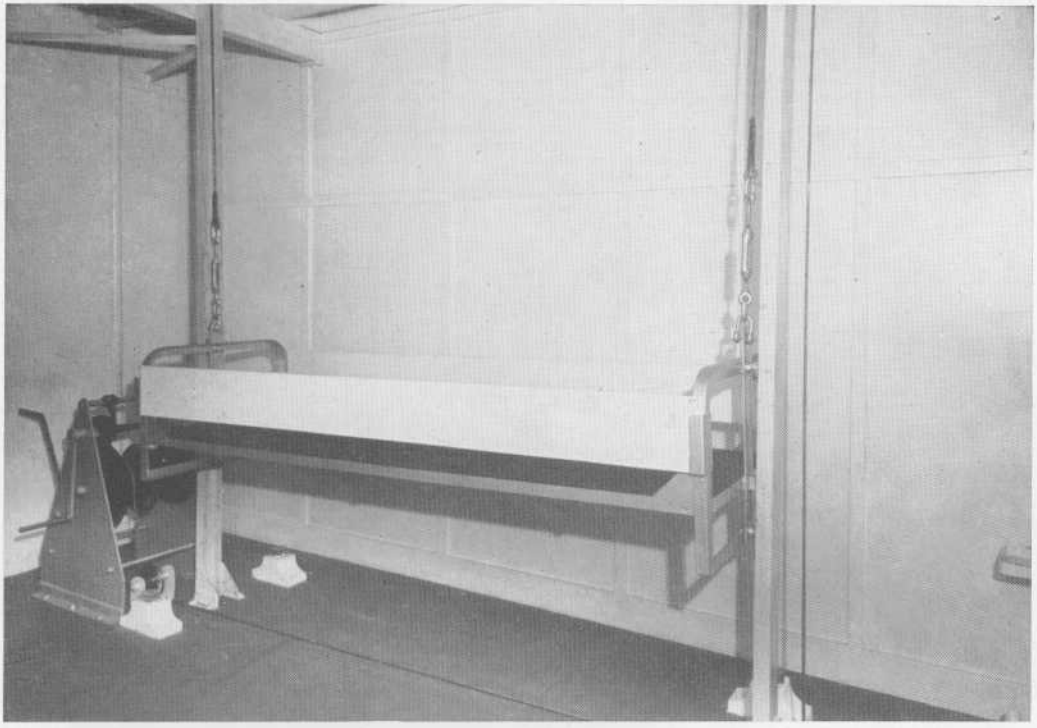


The 2/2nd Hospital Ship *Wanganella*.



(*R.A.N.*)

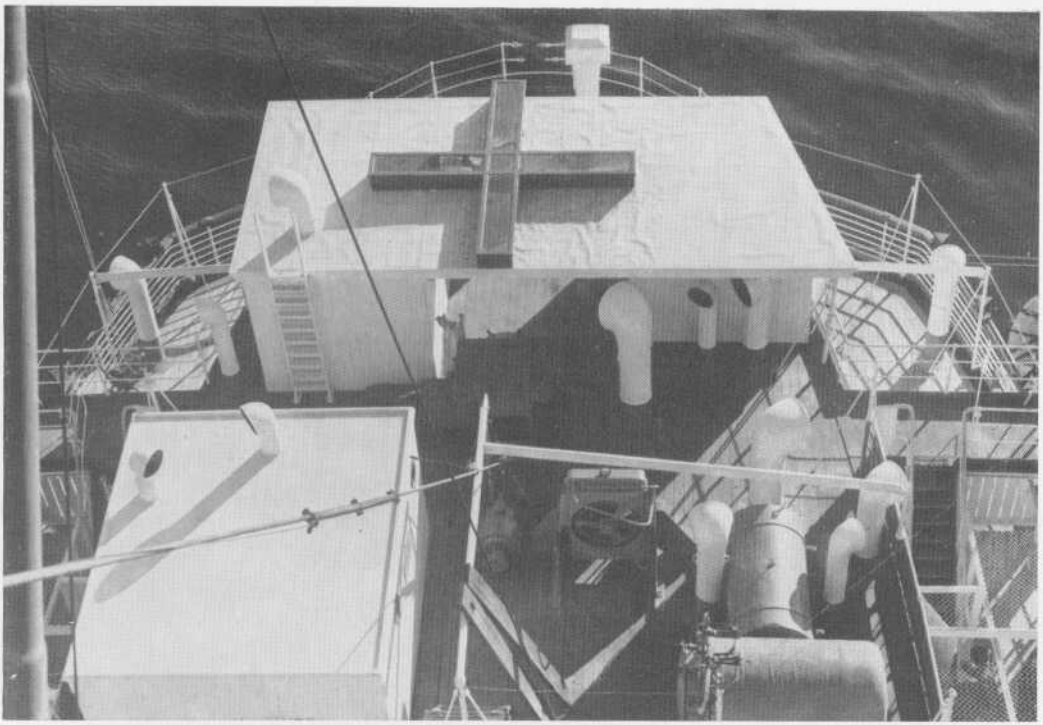
The hospital ship *Oranje*, outward bound from Fremantle, August 1941.



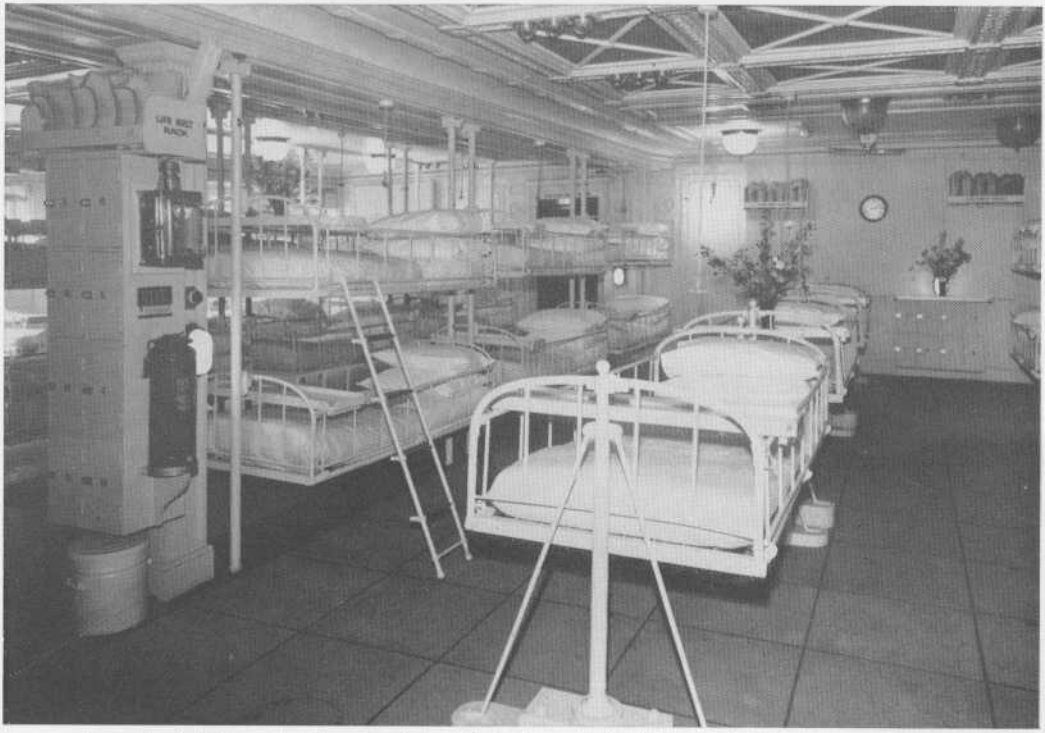
Cot lift in the hospital ship *Manunda*.

(*R.A.N.*)

Wounded being taken aboard the hospital ship *Wanganella* at Balikpapan, Borneo.



The deck of *Manunda* with decontamination unit and disinfector in foreground and electrically lit red cross in background.



A ward of *Manunda*, showing type of single and double cot, ladder for approaching top cot, patients' lockers, accessory oil lamp lighting and punkah-louvre system of ventilation. Single beds are raised on blocks to a height of 2 feet 6 inches to facilitate nursing.

A small armed carrier belonging to the Egyptian Government, *El Amira Fawzia,* took patients back from Salum and Mersa Matruh to Alexandria. It could accommodate 122 lying casualties. Troops and prisoners were also carried in considerable numbers on the lower boat deck; this was a hazard, for in emergency it might have been difficult to hold lifeboat accommodation for patients and staff against the competition of prisoners. In case of trouble the medical staff was armed. The resources of this vessel were strained at times, as on one trip when 850 troops were carried from Mersa Matruh to Salum. On such trips the already insufficient sanitary arrangements became quite inadequate. The ship was of shallow draught, fast, and easy to manoeuvre in and out of the cramped harbours, and did much useful work, although by reason of its charter it could not go past the Egyptian border. Major J. H. Stubbe, A.A.M.C., was in charge, with a staff of two other medical officers and 17 other ranks. In ten trips, made over a period of six weeks, *Fawzia* carried 219 British and 257 Italian stretcher patients, and 445 and 644 walking wounded. In addition 4,721 unwounded prisoners and 3,490 British troops were transported, a total of 9,776.

One transport serving in the Mediterranean, the *Chantala,* an armed merchant ship of 3,500 tons, was sunk while on sea ambulance work. Captain N. F. Laidlaw, with 10 other ranks rostered for ambulance service, travelled on this ship from Alexandria to Tobruk in 1941. On the return trip on 7th December the ship survived air attacks, but was sunk by a mine. A number of German and Italian prisoners were on board, and a few lightly wounded. No stretcher patients were taken since the sister ship, *Chakdina,* had been torpedoed the previous night. One hundred and twenty prisoners were killed by the explosion, and the remainder in fear obstructed the work of rescue. However, Laidlaw and his staff got away as many survivors as possible on lighters and boats, and the party reached Tobruk safely; some of them returned to Alexandria on the hospital ship *Somersetshire.* Other members of the Australian party started back on another ship, the *Shuntien,* which was torpedoed 60 miles off Tobruk. Most of the men were rescued after being a couple of hours in the water, but a medical officer, Captain C. S. Donald, and five orderlies were lost.

Though Australian hospital ships were not used in the Mediterranean, experiences with British hospital ships determined a most important change of policy there. During the siege of Tobruk the sea was the vital link in the chain of communication. Even if the privileges of hospital ships under international conventions were observed, these ships still sailed in perilous waters. On 14th April 1941 the British hospital ship, *Vita,* was attacked in Tobruk harbour by dive-bombers at 5 p.m. on a bright afternoon, just after leaving anchorage with 422 patients. Near misses caused serious damage which flooded the engine room and left the ship helpless. The R.A.N. destroyer, *Waterhen,* was unsuccessful in an attempt to tow the ship, but she took the patients off, and *Vita,* carrying only baggage, was later towed back to Alexandria. At the end of April 1941 another hospital

ship, *Karapara,* fouled a boom when leaving Tobruk in a dust storm, and caused anxiety for some hours lest she should be attacked. Although fortunate on this occasion she was attacked on 4th May during a heavy air raid after having taken on 164 sitting patients, and was forced to leave with only one engine working. These experiences shattered any remaining faith in the inviolacy of hospital ships leaving Tobruk, and in any case *Dorsetshire* was the only other hospital ship immediately available there. All patients from Tobruk were thereafter sent back to Alexandria in destroyers and other smaller fighting ships. Though there were great difficulties in accommodating and looking after sick men on board ships designed only for combat, the patients were given all possible care and consideration, and reached their destination promptly and usually in good condition. Apt organisation and the joint efforts of all concerned ensured remarkable speed and gentleness in embarkation from land hospital to the ships.

Greece provided experience of a different kind. The German Air Force made Piraeus a very dangerous port and inflicted great damage on it. When the decision was made to send all nurses back to Egypt about half the establishment of one A.G.H. embarked on the hospital ship *Aba,* but an air raid then forced the ship to sea, leaving a number still to be taken off. The naval authorities did not consider that the risks of using hospital ships under existing conditions were justifiable. Accordingly the remaining British, Australian and New Zealand nurses were transported by hazardous but well organised movements to points in the Peloponnese, where cruisers, destroyers and transports picked them up with the troops—fit but tired men, as well as walking wounded—and took them all to Egypt. It is obvious that hospital ships alone could not have coped with these problems of evacuation.

Crete told still another story. Before the threatened German air invasion took place all efforts were made to return to Egypt those whose presence could not assist the military effort: these included unarmed troops, all nurses, and unneeded medical officers. During this period of respite transports loaded in Suda Bay and returned to Egypt under naval escort; adequate medical attention was provided on board to both servicemen and civilians. On 5th May *Aba,* with great difficulty, embarked 600 patients from small boats in Suda Bay and returned them in safety to Alexandria. During the next week two transports took off medical units and other troops; one of these, the *Lossiebank,* caused her 2,000 passengers anxiety when one engine broke down, but both ships survived air attacks and arrived without loss. On 16th May *Aba* returned and took off 561 patients, mostly from the 7th British General Hospital. On her voyage from Suda Bay to Haifa *Aba* was attacked by aircraft, but suffered no serious damage.

As is well known, the final evacuation from Crete was made from the little cliff-bound beach of Sfakia, where destroyers at great risk and with considerable losses embarked on six nights some 17,000 troops, including some sick and wounded.

Before these attacks on *Vita, Karapara* and *Aba* the British Government had protested through the United States that no less than 31 attacks had been made by enemy aircraft and shore batteries on hospital carriers and ships, sinking three. After further attacks the British intercepted the Italian hospital ship *Ramb IV* off Aden and took it over for temporary use as a hospital ship to replace one of those lost. This unique reprisal, if such it could be termed, had an attached condition that the *Ramb IV* would be used for British and Italian wounded and returned after six months if no further attacks were made. This arrangement was terminated on 10th May 1942 when the *Ramb IV* was involved in an enemy air attack at Alexandria and sank with the loss of 150 lives. Though this part of the narrative does not deal directly with Australian hospital ships it concerns the safety of Australian sick and wounded, and touches on a number of episodes which had an important effect on naval and military policy towards all hospital ships.

To it may now be added a brief account of the careers of the three hospital ships *Manunda, Wanganella* and *Oranje,* during the 1940-42 period, together with some significant features of their history.

The first trips of the *Manunda* were to the Middle East. The possible dangers run by a hospital ship were illustrated during her second voyage, when she was delayed for some weeks at Ismailia and in Lake Timsah by the dropping of mines in the canal by enemy aircraft. While in the Bitter Lakes a Greek ship moving out in advance of the *Manunda* struck a mine, and *Manunda* ran further risks by being tied up in the vicinity of a vessel with a load of T.N.T. while raids were going on. This question of anchorage will be mentioned later.

Towards the end of 1941 the *Manunda* had a quiet period, and remained in Sydney with the staff on leave from 17th September till the beginning of 1942, when she was sent to Darwin. During the first part of this period the services of a hospital ship were asked for in Malaya, but by the time the *Manunda* arrived in Darwin on 14th January, the position in Malaya was so serious that the sending of a hospital ship was regarded as an unjustifiable risk. After a further period of waiting a convoy of troops bound westward from Darwin was heavily attacked from the air, and was ordered back to port. There could be little doubt about the significance of this warning, and on the now historic 19th February 1942 the blow fell on Darwin. A number of naval and other ships were then anchored in the harbour, and a precautionary dimming of lights had been ordered. The American naval units and merchant ships were blacked out, and the master of the *Manunda* followed this example, though the Australian naval vessels were brightly lit, as were also the wharves where work was proceeding day and night.

It should be noted that though the *Manunda* was anchored well away from the wharf area she was in the centre of a ring of naval and merchant ships, and could hardly have missed damage from bombs meant for the others. At 10.5 a.m. on 19th February a bomb fell near the wharf—observers on the *Manunda* were certain that this was the first warning—

immediately followed by the sounding of air raid sirens on shore. A Japanese aircraft formation flew over, dropping a series of bombs, and, swinging round, came in for another attack in which the *British Motorist* was sunk and the *Neptune* and *Zealandia* set on fire. Eight ships were lost including American and Australian naval units. The *Manunda* was damaged by a near-miss which seriously affected the instruments on the bridge, while another bomb lit fires and wrecked the social and living quarters in forward parts of the ship. One military officer, one nurse, one corporal, and two officers and seven ratings of the crew were killed, while a number of others were wounded. The *Manunda's* motor lifeboat picked up over 30 badly burnt and injured men from the water. Next day 19 deaths were reported from the ship, and later 15 more.

The medical staff worked with cool competence, showing the results of months of experience and assiduous training for emergencies. Patients had to be carried by hand as the lifts went out of action, and by nightfall there were 76 in the ship, the theatre operating to capacity till after midnight. Fortunately the ship was still seaworthy, and the engineering staff worked hard to repair the damaged fire mains and steering gear. One hundred and ninety wounded and sick were embarked during the next afternoon, and at 11.30 p.m. on 20th February the *Manunda* sailed for Fremantle. In spite of the severe damage to the navigation instruments and the depletion of ship's staff, the *Manunda* reached Fremantle safely and, having left most of the patients there, went on to Adelaide and later to Melbourne for repairs.

After completion of repairs the ship resumed work, taking up the New Guinea run to Moresby and Milne Bay. On one of these trips remarkable incidents occurred in Milne Bay in striking contrast with those at Darwin. At 10.30 p.m. on 6th September the *Manunda* was anchored in the bay when a Japanese cruiser and a destroyer drew in, inspected the brightly lit ship and the surrounding waters with searchlights, and then bombarded the wharf and airfields area, sank the motor vessel *Anshun,* but did not fire on the hospital ship. The next night a Japanese cruiser again bombarded the area but spared the *Manunda.* Further episodes in the ship's career in the Pacific area belong to the later period. The successive commanders were Lieut-Colonels J. M. Beith, J. B. McElhone and G. R. Halloran.

The *Wanganella,* whose size and lay-out were similar to those of the *Manunda,* proved very satisfactory as a hospital ship for a little under 400 patients, and 150 more in canvas cots in emergency. Her first trip was to Singapore on 15th to 17th September 1941, after which she was sent to Suez and Colombo and Darwin for a succession of trips. In the earlier part of the Pacific war the *Wanganella* like the *Manunda* served the New Guinea ports and visited Milne Bay and later still went to the Solomons and to Borneo. By request of the New Zealand force in Italy a special trip was made to Taranto.

One experience of the *Wanganella* in the East, in April 1944, showed the value of training and preparedness in a hospital ship. This was an

emergency due to a serious explosion on the waterfront in Bombay in which thousands of people were killed or injured. The whole resources of the ship were employed, and two surgical teams worked for over 24 hours. The value of a course in anaesthesia taken in Sydney a little time before by medical officers of the ship was apparent, as expertly given gas and oxygen proved most useful. Patients were held on board for three days, and then were discharged to civilian hospitals. The first O.C. troops was Lieut-Colonel R. L. Lenihan, who was succeeded by Lieut-Colonel F. Brown Craig.

Though occasional quiet periods were experienced in this ship's career, work went on regularly and without disruption through the war: many sea miles were covered, and a high standard of work was maintained. Indeed, the *Wanganella* had the satisfaction of performing service of a continuous kind which was not the lot of other hospital ships.

In February 1941 the Netherlands East Indies Government offered the use of the *Oranje,* a fast new motor liner of 20,000 tons hitherto reserved for service as an auxiliary cruiser, as a hospital ship on the Middle East-Australia-New Zealand run. The Dutch authorities offered to equip, man and operate the ship at their own expense; this most generous offer was accepted subject to the right of Australia to withdraw should the operating power be involved in hostilities in the Far East. A combined Australian mission, including Lieut-Colonel J. B. D. Galbraith as the representative of the Army Medical Directorate in Australia, flew to Batavia to discuss the medical and engineering problems involved, and the ship came to Sydney for the work of conversion. Colonel Galbraith's experience was valuable as he had been associated with the refitting of the other hospital ships. The Netherlands Government insisted on bearing the whole cost of conversion, though the Australian and New Zealand Governments carried the uninsurable war risk after Japan entered the war.

Oranje completed two runs to the Middle East and back before December 1941, and in these trips her speed and capacity (650 cots) enabled her to transport 900 men in short time in a high degree of comfort. Shortly after the *Oranje* left the waters of the Netherlands East Indies on her second trip war broke out with Japan, and it is interesting in the light of after-knowledge that the ship's course on nearing Australian waters ran close to the position where the *Sydney* at this time sank the German raider *Kormoran* and was herself lost.

Some of the problems of administration of the *Oranje* were unusual. All medical and surgical treatment was carried out by the highly trained and skilled members of the Dutch medical services on board. There was also a small Australian and New Zealand liaison staff, including initially Lieut-Colonels Galbraith and R. F. Wilson, who were the Officers Commanding Australian and New Zealand troops, and of Lieut-Colonels A. J. Aspinall and J. P. Major, Consulting Surgeon and Consulting Physician respectively. In this way some contact with the patients was maintained. The officers commanding were responsible for discipline and the duties of convalescent patients and acted as advisers to the Dutch commander

on the treatment of patients, final decisions resting with the commander. The then D.G.M.S., Major-General F. A. Maguire, doubted if these arrangements would work, and regarded them as an experiment. Inevitably difficulties occurred. For example, all leave was granted by the hospital commander, who was handicapped by a lack of knowledge of Australian Army regulations and practice. During 1942 other liaison officers were appointed, and some of the problems were clarified at a conference at Australian Army Headquarters. Difficulties arose at higher levels also, but these were due mainly to internal differences within the Army Headquarters. For example, in March 1942, the Adjutant-General, Major-General V. P. H. Stantke, proposed to disembark patients from the *Oranje* at Fremantle and turn the ship round rapidly for dispatch to Java. Major-General Maguire, protesting at not having been consulted, pointed out that if the *Oranje* evacuated civilians from Java as proposed, additional medical staff and more medical supplies would be needed. After some delay this voyage was cancelled owing to the rapid deterioration of the position in the Netherlands East Indies.

After March 1942 the Australian and New Zealand attached staffs were no longer regarded as a financial responsibility of the Netherlands East Indies Government, and the expenses were debited to the British Ministry of War Transport. The original staff of Australians in the *Oranje,* as well as the medical officers, included a quartermaster, two senior members of the Army Nursing Service, two physiotherapists, two staff-sergeants and twelve other ranks. To these were later added Voluntary Aids. After the Australian troops had been withdrawn from the Middle East at the end of 1942 the war took different shape for Australia, and by reason of the dangers in the South-West Pacific and the great need for medical officers in Australia all Australians were taken off the *Oranje* and replaced by British. The *Oranje* was a most valuable addition to the fleet of hospital ships serving the Middle East, and after the end of the war this ship again rendered service to Australia by transporting prisoners of war.

The most outstanding events of the period 1943-45 in the Pacific so far as hospital ships were concerned, were the commissioning and loss of the *Centaur,* the changes caused by the development of amphibious warfare and combined landings, and an increase in the air transport of sick and wounded.

Local conditions in the islands, particularly with regard to navigation, embarkation and disembarkation, suggested the use of smaller hospital ships. The United States forces commissioned the *Mactan,* and early in 1943 the Australian Army took over the *Centaur* for conversion to a hospital ship. At first this ship of 3,200 tons was planned as a hospital carrier fitted for short trips, but so many improvements were incorporated that eventually *Centaur* was converted to a modern hospital ship capable of carrying 280 cot cases on voyages of up to 18 days if required. The first estimate of cost rose from £20,000 to £55,000, owing to the greater scope of alterations, which included an extensive hot water system, a larger

operating theatre, and extension of galley and refrigeration service. The crew's quarters, originally designed for a native crew, were greatly improved at the instance of the unions concerned. The ship was notified as a hospital ship to the Japanese Government through the Protecting Power on 5th February 1943, and full publicity given by press and radio. On 14th May 1943 *Centaur* sailed, unescorted, on her first fully equipped voyage north. She was properly marked, and brightly illuminated, showing navigation lights, red crosses on the hull and on each side of the funnel, with white lights along a green band on the hull, that is, in accordance with *Article 5* of the Hague Convention for the Adaptation of Maritime Warfare and in observance of the principles of the Geneva Convention. At 4.15 a.m. while steaming at 12 knots in fine weather about 24 miles from Point Lookout on the Queensland coast the *Centaur* was struck without warning on the port side forward by what was believed to be a torpedo. There was a loud explosion, flames enveloped the forward part of the bridge, and the ship lurched to port and sank in two to three minutes. She was carrying her crew and normal staff, and members, stores, and equipment of the 2/12th Australian Field Ambulance, but no patients. There were only 64 survivors; 268 lost their lives, including 222 military personnel. On 15th May at 2 p.m. the U.S. destroyer *Mugford* sighted rafts and signalled an escorting Anson plane, which investigated and signalled back "Rescue survivors in water ahead". The cruiser *Sussex* was informed, and *Mugford* found two large groups and three smaller groups of survivors on rafts within a 2 mile radius; there was one wrecked lifeboat and another floated keel up. Oil and debris were on the water in the neighbourhood. One nurse, Sister E. Savage, survived and gave great help to the other survivors, all of whom suffered hardship from exposure. The American destroyer gave them every attention and the ship's crew most generously made a collection for them. Further enquiries confirmed that the attack was without warning, and was believed to be part of the torpedoing of a series of eight other vessels off the coast. Some survivors stated they saw the outline of a submarine surface after the *Centaur* sank but this was unconfirmed. No radio message was sent out: only two deck officers survived and it was thought that the radio was made inoperable by the explosion.

Rumours circulated that troops were on the *Centaur* carrying arms, but there was no evidence of any infringement of International Law. Lieut-Colonel L. M. Outridge, commanding the field ambulance, which was proceeding on duty to New Guinea, was one of the few survivors, and was able to verify the fact that the the embarkation had been strictly in conformity with the relevant sections of the Convention. Medical officers may be armed provided their arms are used only in defence of their patients if these are attacked. The drivers of the ambulance vehicles were attached personnel of the Australian Army Service Corps and carried arms, as was usual, and in accordance with the military establishment.

The Australian Government made a protest to the Japanese Government through the Protecting Power on 18th May 1943. There is some

evidence that a Japanese military authority claimed that no Japanese submarines were in the vicinity, and that there was no record of any submarine sinking a ship there. However, this is at variance with the whole of the evidence, and there seems no doubt that the *Centaur* was torpedoed.

The repercussions from this tragic loss were considerable. The immediate effect was similar to that observed on other occasions when hospital ships were attacked: that is, faith was lost in the safety of registered hospital ships. The problem is similar to that of attacks on medical units on land.

On 18th May 1943, when the news of the loss of the *Centaur* became public, the staff of the *Manunda* was on leave with a nominal headquarters in Sydney. They made an offer to take up the *Centaur's* work, and on 19th May they were recalled, but after sailing up the harbour the *Manunda* was turned round and brought back and tied up in Darling Harbour. For the next three weeks the *Manunda's* staff was on 24 hours' notice. Then on 14th June they were dispersed to other duties and work began on the ship to convert her to a defensively armed vessel for sailing in convoy. *Manunda* was painted grey; gun mountings were installed, and arrangements were made to accommodate 15 or more naval gunners on board. Medical opinion was opposed to the conversion, and on 28th June 1943 the D.G.M.S., Major-General Burston, wrote to the Adjutant-General that the elimination of distinctive markings for hospitals ships was equivalent to admitting that the provisions of the Geneva Convention did not hold good. Surely an enemy on realising such an admission would feel that protection of other medical units was illusory and would act accordingly. Burston pointed out that the *Manunda* must be the first hospital ship registered with enemy governments that had been so altered, and strongly recommended that the project be reconsidered. On 10th July the ship went to sea for gunnery trials and returned, but on 9th August Lieut-Colonel McElhone, commanding the unit, was informed that the ship was to be reconverted to a hospital ship. A week later work began at Cockatoo Dock to remove gun emplacements. On 24th August the unit was reassembled and on the 30th the ship sailed for Brisbane as a hospital ship. After a further month's inactivity the *Manunda* sailed to New Guinea, but on return to Brisbane lay idle, moving from anchorage to anchorage until December, when she visited Thursday Island and Moresby, and early in 1944 travelled up and down the Australian coast.

Meanwhile, with air transport growing in volume and several sea ambulance transports in use for return trips from the island to the mainland, the particular services for which hospital ships were essential were less in demand. In addition there were more permanent hospitals in New Guinea. After the initial difficulties of land evacuation of sick and wounded from forward areas had been overcome, all ordinary treatment could be carried out there. A suggestion was made to fit out the *Gorgon,* a somewhat larger ship than the *Centaur,* as a hospital ship, but these considerations and the acute shortage of shipping disposed of this plan.

At Army Headquarters certain technical questions relating to hospital ships had been under examination for some time before the loss of the *Centaur*. These were important as they chiefly concerned the transport of medical units, a function which was found to be particularly valuable in the South-West Pacific. Towards the close of 1942, before the conversion of the *Centaur* was begun, the legality of carrying ambulance vehicles on hospital ships was in some doubt. Major-General John A. Chapman, Deputy Adjutant and Quartermaster-General at Advanced L.H.Q. in Brisbane, pointed out to Land Headquarters in Melbourne that the army instructions were not quite clear, nor were those from the Naval Board repeating an Admiralty instruction. The point was whether ambulance waggons could be so carried except as part of a complete medical unit and its equipment. It was further stated in the instructions that the first ambulance of a field unit for land service might be carried, if alternative transport was not available, a condition not entirely clear.

In reply the Adjutant-General cancelled an instruction of 20th October 1942, and on 5th January 1943 substituted a full restatement listing all personnel who could be carried on a hospital ship, and clarifying the position concerning arms and material. This instructed that alternative transport of powered ambulances should be used if available, and that the carriage of persons and material be refused if relevant authorities took exception to them.

After the sinking of the *Centaur* the whole position was re-investigated, and a further instruction was issued on 6th October 1943, but even this was not final, and a consolidated instruction was finally issued on 3rd July 1944. This outlined clearly the need to comply with the requirements of the navy in deciding what persons could be legally carried as crew, passengers or patients. A restriction was now laid on those carried as part of complete formed units; only members of the A.A.M.C. could be so carried. The result of this was to take ambulance drivers, previously belonging to an ambulance car company, A.A.S.C., into the establishment of the A.A.M.C. Further, no units or individuals performing quasi-medical functions if not belonging to the A.A.M.C. could be carried on a hospital ship even if attached to a medical unit. Strict definitions of medical units were reaffirmed, which excluded from the category convalescent depots, entomological units and hygiene sections.

Personal weapons only were allowed and permanent guards for sick or wounded prisoners of war could not be carried, only a guard embarked for a particular voyage, and notified to the enemy Powers. Materials and stores carried were clearly defined.

Comparison with the relevant sections of the Conventions shows that the effect of this instruction has been to state clearly what is implied in the Convention, and even at the cost of some rigidity, to ensure the interpretation of the spirit as well as the letter of the law. The examination of war diaries of hospital ships makes it clear that the military commanders have been strict guardians of International Law, and any objections they had taken, even if unsuccessfully, to certain procedures have usually been

soundly based. This does not imply that the conduct of Australian hospital ships in all significant matters was other than strictly ethical, and based on the sure foundation of laws designed for the protection of the helpless. No restrictive conditions were imposed on the patients carried, who were drawn from many categories of distressed persons.

The Royal Australian Navy held views in some ways different from those of the army concerning hospital ships. It is interesting to recall that when the Royal Naval establishment at Garden Island, Sydney, was taken over by the R.A.N. on 1st July 1913 complete medical stores and fittings were also taken over for the use of a hospital ship provided for in the mobilisation scheme of the Admiralty. During the 1914-18 War the Navy Department took over the merchant liner *Grantala* which was used as a hospital ship during the expedition to Rabaul. After the successful conclusion of the Falkland Islands action the *Grantala* was paid off and returned to her owners. It is possible that the Royal Australian Navy might have had more intimate control of hospital ships in 1914-18 had the conditions of warfare on land and sea not brought Australian naval services more naturally under control of the Admiralty. Even before September 1939 the medical branch of the Royal Australian Navy advocated the manning and running of hospital ships by naval personnel. The question of direct control of hospital ships by the navy was raised again during the war but no action along these lines was taken. At a conference of naval and military surgeons including Australians, which was held in Washington soon after the beginning of the war, the opinion was expressed that hospital ships should be controlled by one Service, thus avoiding many problems which may arise between the captain of the ship and the military commander of the hospital. In 1940 the Director of Naval Medical Services, Surgeon Captain W. J. Carr, drew up a minute recommending that hospital ships, as distinct from hospital carriers, should be used, and that they should be converted, manned and equipped by the navy. In February 1941 the *Wanganella* was the subject of such proposals, but the D.G.M.S. in a letter to the D.N.M.S. pointed out that the Committee of Service Medical Directors considered it best not to retain the *Wanganella* for naval purposes, but to use the ship for care of casualties of all Services from the Middle East, the Far East and Darwin, and for naval needs in an emergency. If further naval requirements arose a hospital carrier could be improvised. The D.N.M.S., however, considered that further naval facilities were essential, and that the *Wanganella* should be controlled by the navy. As has been previously told, the combined method of control, under which the navy supervised or carried out the conversion and maintenance and routeing of hospital ships, while the merchant navy sailed the ships and the army controlled the hospital as a military unit, was retained.

Naval control played an important part in combined operations and amphibious landings. Armed merchant cruisers and L.S.I. or L.S.T. sailed with the convoys, and they carried special medical staffs which could provide surgical teams in addition to the technical assistance normally avail-

able in land field units. Such vessels were not protected under the Geneva Conventions. Craft of smaller size or shallower draught took troops and material in to the beaches, and at as early a stage as was safe the medical portions of the landing parties. These set up immediately the attendant ships could provide supplies, but they treated only urgent cases, the small craft taking other sick and wounded back to the ships. There all work could be done that would ordinarily be carried out on land in the M.D.S. of a field ambulance or a forward section of a casualty clearing station. Treatment on craft such as Landing Ships Transport was not always ideal, as some medical and surgical conditions called for special facilities, and, as far as possible, patients were carried only for brief periods, although under certain conditions longer holding periods were unavoidable.

Small craft were also employed for evacuation of patients along the coast of New Guinea and other islands. Details of these operations are not relevant to the story of hospital ships; we may merely note that special ancillary beach units were established by the army medical services to provide the first stage in water transport, and from these patients were taken off by craft of about 80 feet, which could carry up to 27. The later stages of evacuation were by air, using flying-boats or land-based aircraft, and the final stage by the comfortable hospital ship.

As we have seen, the R.A.N. Medical Services advocated hospital ships as distinct from hospital carriers for the sea transport of Service casualties. Surgeon Captain L. Lockwood pointed out, however, that hospital ships were expensive and that other types of sea transport were of value where the sea distances were great. For the rapid embarkation and transfer of sick and wounded fast escort types of vessels could be used as carriers protected under the Convention. These could collect wounded near an operational area and transfer them to a hospital ship or a forward hospital farther away from the operational area, from which the patients could be transferred to the mainland if required. Certain serious embarrassments had been encountered in the handling of casualties in naval engagements. In a combined Services conference on hospital ships in 1946 Surgeon Commander J. M. Flattery instanced the sea actions off Leyte and Lingayen. Wounded were held perforce in the *Australia* under extemporised conditions on stretchers in ward rooms and messes. A modern fighting ship is designed only for fighting, and under action conditions the medical officers are sufficiently occupied without the further responsibility involved in holding large numbers of casualties. After one action the *Australia* had to return 800 miles to Manus, three days' steaming, to meet a hospital ship at sea; in a dangerous area the transfer of wounded to this ship was no light responsibility. The principal risk was not to the hospital ship but to the cruiser, a ready target for an enemy submarine. To the wounded the ordeal was considerable too, but even more trying was that of being taken back into action in a fighting ship, in which the patients lay helpless often with guns firing overhead. In amphibious landings the American Navy had hospital ships, armed transports, and hospital

teams on ships ready for landing, the arrangement being that the hospital ship should arrive at a determined period after the landing.

One of the most gratifying tasks for hospital ships was that of repatriating captured servicemen and women suffering from disease and malnutrition, after the harsh conditions of prison camps. Only the more seriously ill patients fell into the hospital ship category, but to them the service was of the highest value. The *Manunda, Wanganella* and *Oranje* all participated in this work: *Manunda* and *Oranje* took patients from Singapore, *Wanganella* from Borneo, and men from Ambon were evacuated by fighting ships of the Royal Australian Navy. In passing it may be observed that an important principle was observed in allotting accommodation to repatriates travelling on transports. In Singapore Lieut-Colonel G. T. Gibson, A.D.M.S. of the Prisoner-of-War Recovery Group, insisted that ample space should be allowed for debilitated men. After argument he was able to establish his point, and only 800 were embarked on the transport *Duntroon* instead of the 1,300 originally suggested by the British authorities.

Questions Governing Safety of Hospital Ships. Even regulation lighting may be unsatisfactory if means are not taken to maintain its efficiency. The Dominions Office sent out a dispatch on the subject, advising that

(1) colour of crosses should be true bright pillar-box red;
(2) marks to be of maximum size permitted by the superstructure, especially those meant for recognition from the air;
(3) three crosses be placed on each side of the hull and two on deck, one forward and one aft;
(4) glass fronts of illuminated crosses should be hinged to the outside of boxes;
(5) boxes should be painted white and reflectors used.

More difficult to settle were some of the arguments whether the hospital ship should black-out in dangerous waters or remain lit. A number of instances occurred when a hospital ship was directed to an anchorage which was not of itself completely safe, and yet objection was taken by naval authorities to the use of the Geneva lights and emblem on the grounds that these could easily disclose the presence of fighting ships. In Moresby harbour in 1942 the *Manunda* extinguished its lights on naval instruction, though the area was not completely blacked-out, searchlights being in use. Here the O.C. troops thought the lights should have been lit. The same situation arose at Morotai and Biak, and protest was made by a hospital ship that the protection which was its right was in danger of being denied. In 1941 the master of the *Oranje* suggested that if challenged by an enemy when the ship was lighted he would extinguish lights and go full speed. The Australian staff considered this contrary to the Geneva Convention. Though there is nothing to prevent a hospital ship from blacking-out in a dangerous area or one where the ship's lights might betray the presence of other ships, and though blacking-out does not contravene the Convention, it must be remembered that such action lessens the right of complaint if a ship is endangered or damaged. A

striking example of protection afforded a hospital ship when fully lit at night occurred in Milne Bay. As already described, a Japanese cruiser entered the bay and, after inspecting the *Manunda* with a searchlight, left without making any hostile gesture to the ship.

It has been stated that no hospital ship should be anchored nearer to the heart of a danger zone than 40 miles. Suez was notoriously dangerous, and owing to the constant risk of air raids the arrangement was that hospital ships should not arrive too early nor stay too late. If embarkation had not been completed by early afternoon the ship had to steam down the Gulf and return next morning. In August 1941 the South African hospital ship *Amra* was attacked near Suez. A torpedo-carrying plane circled the ship and fired two torpedoes which missed. The *Amra* was blacked-out at the time, though it was thought that the distinctive markings would be seen in the bright moonlight. This seems unduly optimistic but fortunately no damage was done. *Oranje,* on her first voyage, picked up the *Amra's* S.O.S. while in the Gulf of Suez. *Oranje* herself, though handicapped by a draught which forced her to lie offshore, was extremely efficient in embarking patients. For example on 28th November 1941, 460 patients were embarked and fed between 11 a.m. and 1.10 p.m. Another hospital ship *Manunda* was exposed to unnecessary hazard at Suez when she was allotted a dangerous anchorage—close to a ship which was found to be carrying explosives. The damage later suffered by *Manunda* in the Darwin raid illustrated how dangerous to a hospital ship is the proximity of other ships not protected by the Conventions.

If a hospital ship has been notified to the enemy through the Protecting Power in accordance with the Geneva Convention, if the personnel and stores carried are correct, and if its distinctive markings are likewise clear and correct, the ship is entitled to full protection. The distinctive marks of a hospital ship should be seen more readily from the air than those on tents and huts, but tests have shown that a red cross on a white ground 16 feet square though easily visible at 4,500 feet, is only just perceptible at 8,000 feet. At 10,000 feet only the white ground is visible, and at 11,500 feet even this cannot be seen.

The identity of passengers has also given rise to controversy; this has now been covered clearly in the consolidated army instruction of July 1944, already quoted (see Appendix). The question of arms has also been mentioned. All these points should be scrupulously observed for reasons of legal and moral rectitude, and of humanity. It will also be remembered that the enemy has the right to question or examine hospital ships for a valid reason.

The success of defensively armed transports and other craft unprotected by the Geneva Convention demonstrated that there are other satisfactory methods of evacuation of the sick and wounded besides hospital ships. The position has been changed too by the wider application and excellent organisation of air transport of patients. It is difficult to prophesy what advances will be made, but it cannot be said that the point has been

reached where the hospital ship is obsolete. There is no other method of transport of the sick and wounded over long distances which secures them so high a degree of comfort allied with a very high standard of medical attention.

APPENDIX

Use of Hospital Ships (Army Instruction July 1944)

2. (*a*) Difficulties have arisen in the interpretation and application of the principles governing the use of hospital ships for the carriage of personnel and material and the questions of policy and interpretation involved have been under consideration by the High Command.

(*b*) The following consolidated instructions are now issued for the guidance of all members of the A.M.F. concerned with the embarkation of personnel and the loading of material on hospital ships.

Compliance with Requirements of the Navy

3. As a substantial share of responsibility is borne by the navy, no personnel or material to which the naval authorities object will be embarked, loaded, or carried on a hospital ship.

Doubtful Cases

4. Every effort must be made to maintain the immunity of hospital ships from attack by the enemy and, therefore, in cases of doubt, personnel or material involved should not be embarked, or carried on a hospital ship.

Who and What may be carried

5. Personnel who may be carried fall into two main categories, namely the crew and staffs for the ship itself and passengers.

Ship's Crew and Staffs

6. The ship's crew and staffs include all those personnel whether combatant or non-combatant necessary for the navigation and running of the ship and for the care of the passengers. These personnel are by the nature of their duties engaged exclusively in the collection, transport and treatment of the wounded or sick. Australian military personnel so carried will therefore be restricted to personnel who are duly posted within the war establishment for the ship's staff.

Individuals Who May be Carried as Passengers

7. Individuals who may be carried as passengers include:

(*a*) Sick or wounded personnel of any fighting service of any belligerent.

(*b*) Shipwrecked (including air wrecked or castaway) persons of any nationality or status.

(*c*) Strictly medical personnel of any of the fighting services of any belligerent. (Australian military personnel in this category are members of the Australian Army Medical Corps, the Australian Army Dental Corps, the Australian Army Nursing Service.) These may be carried either on the outward or homeward voyage.

(*d*) Invalid wives (accompanied by their children of tender years) of personnel of any of the fighting services of any belligerent.

(*e*) Reliefs for hospital ship crews and staffs. These may be carried either on the outward or homeward voyage.

(*f*) Sick or wounded merchant seamen or civil air crews
  (i) of belligerent nations, and
  (ii) of neutral nations when such personnel may be regarded as serving the cause of the United Nations, e.g. by serving in British ships.

Who May be Carried in Formed Units

8. (*a*) In addition, the personnel of a complete military medical unit may be carried by a hospital ship as a formed unit, provided that all personnel carried are A.A.M.C. personnel. Such a formed unit may be carried either on the outward or homeward voyage.

(*b*) The following must *not* be carried on a hospital ship:

(i) Units or personnel performing quasi-medical functions but not being units or personnel of A.A.M.C., e.g. ambulance car companies A.A.S.C.

(ii) Personnel not members of A.A.M.C. attached (either within W.E. or Supernumerary) to a medical unit.

Who May be Carried as Guards

9. A permanent guard for sick or wounded prisoners of war may not be carried as part of the staff of a hospital ship. With special approval an armed guard may be embarked for a particular voyage to guard sick or wounded prisoners of war. Notification through the Protecting Power to enemy powers would be necessary.

Personnel Who May Not be Carried

10. (*a*) Sick and wounded personnel means personnel who will actually require medical and/or nursing attention during the voyage. Consequently convalescent personnel, and personnel being returned by reason of their being over age, or in need of recuperative leave, or unfit for service in the field will not be carried.

(*b*) Strictly medical and dental personnel only may be carried as individual passengers but any other non-combatant personnel—e.g. Chaplains and Red Cross personnel—may not be carried as individual passengers (notwithstanding that they belong to a medical unit) unless they fall within one of the other categories of personnel who may be carried (vide paras 6 and 7).

(*c*) Convalescent depots, entomological units or hygiene sections are not medical units, and consequently neither these units nor their personnel may be carried unless those personnel fall within one of the other categories of personnel who may be carried (vide paras 6 and 7).

Weapons of Personnel

11. For the purpose of maintaining order and for defending the sick and wounded, personal weapons may be carried on a hospital ship by—

(*a*) the ship's crew and staff;

(*b*) an armed guard where special approval for a guard for enemy prisoners of war has been given;

(*c*) all personnel travelling as passengers who are entitled to the protection of the Red Cross Convention.

Material

12. A hospital ship may be used to carry the following medical material and stores:

(*a*) Material and stores for the purposes of the ship and the treatment and care of patients and personnel on board.

(*b*) Personal belongings of the personnel on board.

(*c*) Medical and dental stores, provided that—

(i) They are supplies peculiar to medical or dental units; and

(ii) They are in packages clearly marked with the red cross and addressed to the medical or dental unit for which they are destined. They must not be marked for ordnance depots.

(*d*) Where a complete medical or dental unit is being carried, the full equipment of that unit except vehicles.

Ammunition

13. Reserve ammunition for weapons of personnel travelling on a hospital ship and entitled to carry personal weapons may not be carried in a hospital ship.