THE NAVY

The Magazine of the Navy League of Australia

JANUARY, 1982

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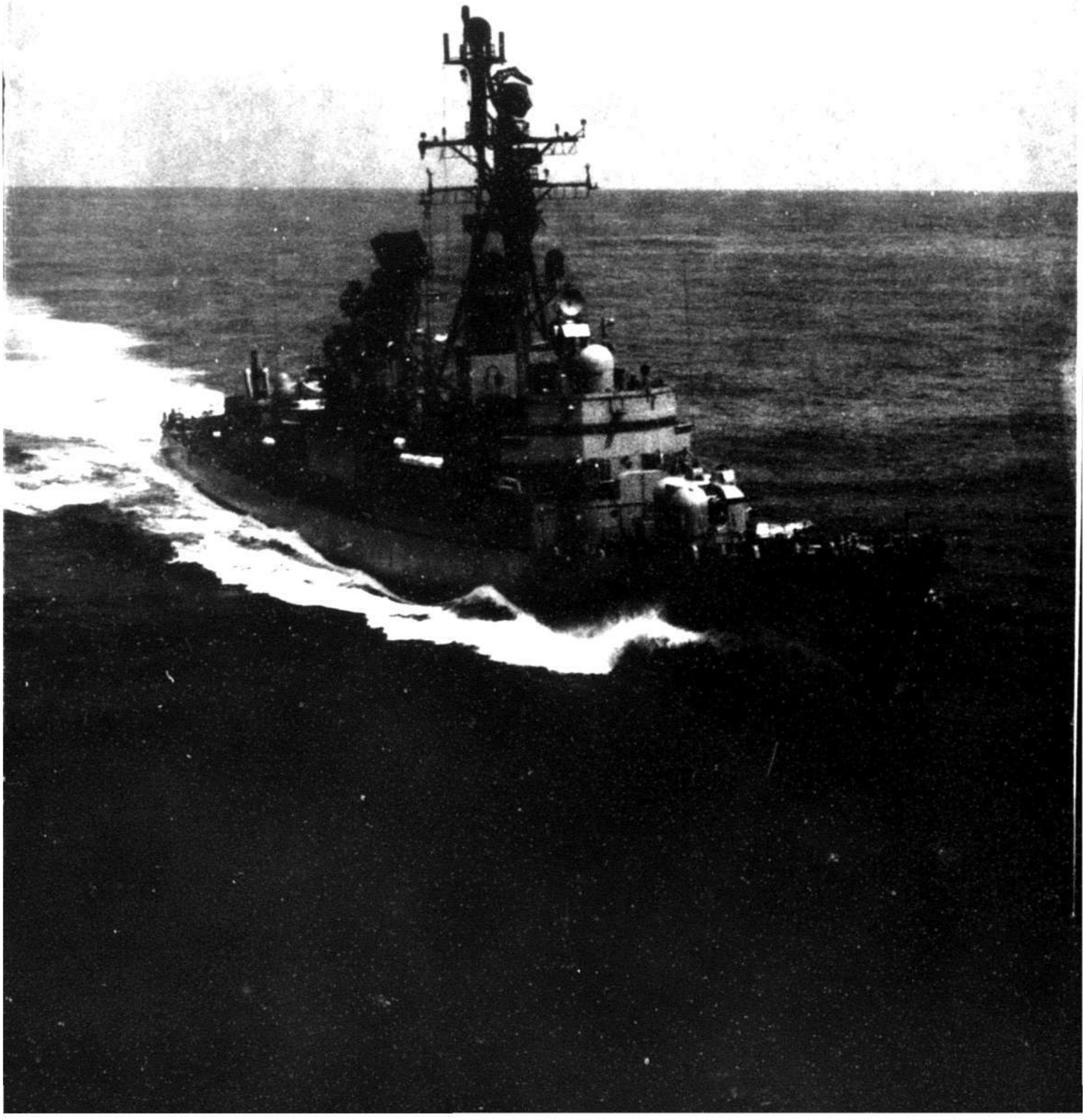

THE NAVY

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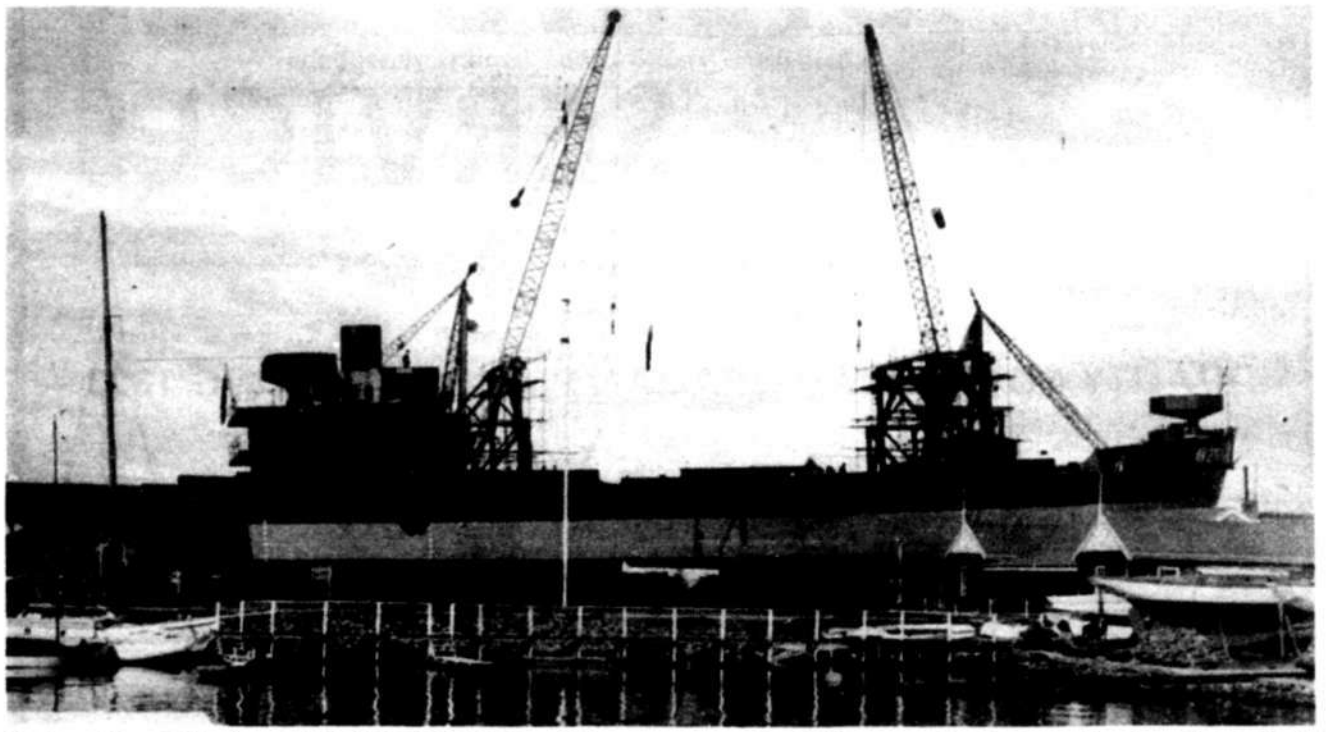

Starboard broadside view of AV 2767, CRUSADER, which was constructed at Williamstown for the Australian Army in late World War II. The story of the "one of a kind" CRUSADER commences on page 25. *(Photo — Australian War Memorial.)*

COVER PHOTO

HMAS PERTH, 4th October, 1977

(Photo — Ross Gillett)

CONTENTS

The Single Most Important Factor

*By Commodore D. D. MILLER, ADC, RAN**

There has been, over the past year or so, considerable media coverage of the Navy's new hardware. Members of the Navy League in particular, will be aware of the exciting acquisitions that this re-equipment programme is producing. They, more likely than most, will be aware of how valueless these expensive assets must be if the personnel who man them are not adequately trained and properly motivated.

The Single Most Important Factor. It comes from the caption under the photograph of a sailor, which appeared as the frontispiece in a Divisional Officers' Handbook, issued to newly commissioned officers in the early 50s. That volume was a slender, almost pocket sized booklet; today's version is a much larger, much more expensive production. I regret however, that the photograph and that caption do not appear in the present handbook.

This subject is also important because it absorbs almost 50% of our budget. Despite this, I have found that much of what we do to select, train and manage our personnel, is not as well publicised as our more obviously newsworthy activities. I will be commenting at some length on recruiting and initial training, because we have to find approximately 2000 new recruits each year and from this effort all else flows.

Samuel Johnson had a view about the attractions of the Navy. He wrote to Boswell in 1755:

"No man will be a sailor who has the contrivance to get himself in jail, for being in a ship is being in jail with a chance of being drowned. A man in jail has more room, better food and commonly better company."

And, R. W. Emerson wrote in the mid-1800s:

"The wonder is always new that any sane man can be a sailor."

It is relevant to consider the present day attitudes to the Navy, for the community attitude obviously affects our ability to attract new recruits. Here we have the benefit of the results of a Defence Funded Market Research Study, carried out last year. This study found that the community viewed the Defence Force as being:

- too small;
- inadequately equipped,
- accident prone; and
- generally run down.

There was a general feeling that the current defence force was not as good as it should be, or had been in the past.

The Navy had the least immediate prominence in the community mind and whether young or old, the peace time role of the defence force was seen to be cloudy and obscure. One particularly valuable attitude revealed, from Navy's point of view, was that Australians are very conscious that Australia is an island, with a vast coastline, and protection of our waters is seen as an important Navy activity.

So much for the community attitude to the Navy. How does the Navy see the youth from whom we expect to gain our recruits? A separate earlier study, produced the following picture of today's youth:

- lacks identity;
- disdains authority;
- lacks confidence;
- not articulate;
- not a great reader;
- lacks sense of direction;
- cynical about advertising claims;
- concerned about discipline and authority;

***The Governor General, Sir Zelman Cowen takes the salute during a march past HMAS CRESWELL's quarterdeck.** (Photo — RAN.)*

*Commodore Miller is Naval Officer Commanding, Victoria Area. This article is based on an address he gave recently to the Victorian Division of the Navy League.

- concerned about restrictions on freedom;
- need approval of peers.

Those of us who have teenage children or have some recent knowledge of teenage children will also know that they are very likely to have a quite different attitude to us about drinking, drugs and moral attitudes. They have heightened expectations, they question authority and they are subject to many pressures.

Taken on its own, that is a fairly worrying picture of today's young people and would not augur well for the future of the Navy or indeed of this country. Fortunately, there is another side to that story. The market research which tested public knowledge and awareness of the armed forces, also looked at the young people, their attitudes in general and in particular their views about the armed forces. That study found that most young people, particularly young males, personally expect to work — being on the dole is generally viewed unfavourably. Their immediate plans and decisions tend to be flexible and short term, but most young people do think of eventually seeking a career rather than a job.

The more important features of *employment sought by young people are:*

- security;
- having a fair boss;
- opportunity for a good family life;
- learning a skill.

Monetary considerations appear to be of secondary importance.

With this background then, how does the Navy fare in its recruiting efforts? During the six months ending March 30, 1981, we had just a few short of 16,000 enquiries — these led to approximately 4,000 applications and 1,084 enlistments. So, for every 16 enquiries — 1 recruit.

Once recruited and entered, wastage commences almost immediately. The first major wastage occurs at the Optional Discharge point, where we give all recruits the opportunity to leave the Navy — this point varies between 70 days for General Entry Recruits and seven months for Apprentices. We lose about 7% of General Entry Recruits at this stage. We lose very few junior recruits but about 10% of Apprentices.

The reasons given by those who choose to return to civilian life are:

- Six years is too long (this is suspect, as they know this before enlisting — this excuse probably masks other reasons, or is used as a general catch-all reason);
- lack of freedom in the Navy;
- miss friends and family;
- dissatisfaction with category;
- loss of individuality;
- too many rules and regulations.

It is interesting to note that the market research comment on pay not being a significant factor was supported by the optional dischargees, in that pay was not rated highly for reasons of discharge at own request.

The next wastage occurs during category training, when trainees are discharged unsuitable or as training failures. During 1980/81, these totalled about 2% of the intake. We therefore lose something like 1 in 10 of our recruits before they reach the passing out stage.

Once initial training is completed, discharges may be for:

- disciplinary reasons;
- at own request;
- unsuitable;
- services no longer required;
- medical or by elective discharge.

As might be expected, most discharges occur at the Leading Seaman level, or below, on completion of the initial six year engagement. The end result of all this is that we have to recruit almost 2,000 sailors during the current 1981/82 year.

Obviously, the retention of our trained, experienced manpower is vital to our effectiveness. Unless we can keep more trained men, the proportion of initial trainees and training staff increases with a proportionate decrease in the numbers available to fill active billets.

I was interested to compare notes with the Captain of USS GOMPERS recently. The USN is re-engaging 35% of its first-hitch sailors. The primary reason women are now crew members of ships like GOMPERS is because of shortages of male USN personnel for seagoing duties. GOMPERS has 99 females in a ship's company of 1200; in 1982 she will carry 200 females. Our re-engagement rate for initial engagement sailors is about 25% and about 50% overall. However, we do have longer initial engagements than the USN and our sailors, on average, serve 8½ years. WRANS serve, on average, 4.02 years.

The USN has for many years paid re-engagement bounties. The form has varied but it has always been flexible enough to pay the highest bounties to the highest paid specialists. The present enquiry into our pay is giving some attention to this type of bounty.

The officer attrition rate during 1980 was approx 200, many of them experienced officers. The current average length of service, excluding midshipmen, is 16.03 years. The main shortages in the officer structure is at the CMDR/LCDR level. There are serious shortages in the Seaman and Supply branches but of particular concern is the shortage of Engineering Officers.

Only a small number of RANC graduates go on to Engineering studies and there is a relatively high resignation rate amongst serving Engineers. This has coincided with a rapidly expanding demand for Engineers in Project Management and equipment acquisition programmes. There is, as is generally well publicised, a national shortage of engineering graduates which drastically limits the Navy's ability to recruit Direct Entry and Undergraduate Entry Engineer Officers. The good news, I guess, is that serving Engineer Officers can look forward to good career prospects.

I am not aware of the results of any surveys carried out to establish the reasons why sailors do not re-engage. We have some information on why officers resign. From my own fairly limited sampling I would suggest that the conflict of loyalty which occurs when a sailor or officer marries is a major reason. It has always been a problem, but with so many of today's young wives career-minded in their own right, there is a growing problem — not peculiar to the Armed Forces — of trying to post a husband to a new locality when the wife will not, or at best is extremely reluctant to shift from the old locality. Industry and commerce attempt to solve this problem by making the offer sufficiently attractive to both parties; the Armed Forces do not have that capability.

Other reasons would include:

- Dissatisfaction with pay;
- dissatisfaction with a particular posting;
- Dissatisfaction with career prospects;
- all the above — a combination of a variety of reasons all coming together at the one time — a good job offer outside, a poor posting in the pipeline, a wife and family happily settled in their present location, a general dissatisfaction with career prospects and/or head office management.

I have already referred to the inability of the Armed Forces to offer financial inducements to overcome some of the disadvantages of a career in the Services. We do have some "plusses".

We meet the job expectations of young people in two highly rated areas — security and career prospects. At least until they marry — we also meet expectations in several other highly-rated areas — the desire to travel and the desire for an interesting job. We provide on-the-job training, in some cases to a very high level of proficiency, thus enhancing the individual's value on the job-market when he/she eventually leaves the RAN.

For the married sailor, we have assistance with housing, either by the provision of Married Quarters or assistance with rent. RANRTF loans are available to assist with the purchase of homes, furniture, or the payment of pressing debts. Holiday centres have been established at Lake Burrill, Forster and we have access, on a reciprocal basis, to Army and RAAF holiday centres.

The Personal Services Organisation provide assistance, advice and support to families in matters of housing entitlements and general social services. Advice is arranged on education, resettlement and legal matters. Matters of a social service nature are handled by professional Naval Social Workers and legal advice is available from PNF and Reserve Legal Officers.

The Family Services Scheme, funded by the RAN Relief Trust Fund, makes funds available, as grants, towards meeting the cost to personnel who need to use housekeepers in an emergency when such assistance is authorised by a Naval Social Worker.

The Naval Health Benefits Society is a private health insurance organisation restricted to uniformed RAN personnel civilians employed by Department of Defence (Navy), relatives from these categories and their dependants.

The AUSDIL Scheme provides transportation, accommodation and meals at departmental expense to enable next-of-kin to visit relatives of a member who is on the "very seriously ill" list.

I believe that we provide as good a family support service as any employer in the nation but even that, of course, is little comfort to the wife keeping a family and home going for up to six months on her own. The pressures on both husband and wife are great indeed and are significant factors in our re-engagement/resignation problem areas.

In the case of officers, I believe another factor is at work — at least as a complementary factor to other reasons for resignations from the middle ranks. Our pension scheme provides a pension after 20 years service. It is a relatively small pension at that stage but if commuted, it does represent a chance to obtain a lump sum plus a small residual pension at a time when for all sorts of reasons an officer may be contemplating his future in the service.

It is quite natural that from within the Navy we should be concerned to reduce the rates of discharge and resignation. We could, given free rein, suggest all sorts of inducements — primarily financial — to improve the situation. Another argument takes a different view. This view is that trained ex-servicemen are an asset to the nation and that the cost of training for the armed forces should be seen in that light. It is a difficult argument to refute — provided funds and manpower ceilings are such that the effect of the training load does not diminish the sharpness of the teeth. Also, in my opinion, that view begs the question of how to maintain the correct balance of experienced, mature personnel and keen, young personnel.

These remarks would not be complete without a comment on the quality of today's younger sailors and officers. I have no concern in that respect and I know that other senior officers share that view. The younger personnel are keen, intelligent, confident and alert. They have a great pride in the RAN. They are good citizens of the community. They are enthusiastic about the new assets coming into the Navy and are being well-trained to operate them. So long as management never forgets that they are the single most important factor, I am confident that they will serve us well.

Acknowledgements

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Deadline for the next issue will be
5th FEBRUARY, 1982

KANGAROO 81

BACKGROUND

ON Monday, October 12, 1981, the Blue Fleet sailed from Sydney, thus beginning the Operational Phase of Exercise Kangaroo 81, an exercise involving approximately 20,000 troops, 100 aircraft and 25 ships.

The exercise had taken over 12 months to plan, being one of the largest combined and joint exercises ever conducted by the Australian Defence Force; an exercise which involved the three Services and Forces from the United States and New Zealand, with minor participation from the United Kingdom.

In September, 1980, the Chief of Defence Force Staff issued his directive for the conduct of the exercise. The aim was to exercise participants in conventional low scale, mid-intensity conflict in the defence of Australia. Included in the directive were 63 objectives and tasks which had to be achieved. Two of these objectives had not been included in previous exercises in the series and were to have a fundamental influence on exercise planning.

Exercise Kangaroo 81 was the fourth in the Kangaroo series. Exercises K1, K2 and K3 were held in 1974, 1976 and 1979 respectively. Like previous exercises in the series, K81 was conducted off the eastern coast of Australia and in the central Queensland coastal area where there is available an area called the Shoalwater Bay Training Area.

A number of factors were to shape the exercise. These included the aim, objectives and tasks to be achieved, resources available, the geographical location of the training area, the time available. The aim of the exercise required a scenario where the scale of operations could be handled to conclusion within the peacetime organisation of the ADF, and fought with limited objectives and limitiations relating to weapons and the extent of the geographical area involved. The first step in developing this scenario was to construct an enemy order of battle (Orange Force) by dividing the forces made available for the exercise, including Allied Forces, and making allowance for manpower and equipment required for the control and umpire organisation.

The next task was to describe an imaginary enemy which would have the population, infrastructure and notional order of battle capable of projecting a force equivalent to the actual Orange Force order of battle previously selected. Assistance in this task was received from the Joint Intelligence Organisation, who produced a hypothetical military study on the imaginary country of Orangeland describing the Government, Infrastructure, Intelligence Community, Military and Para Military Forces. The notional order of battle of ships, land forces and aircraft was carefully constructed to provide intelligence analysts with a realistic enemy.

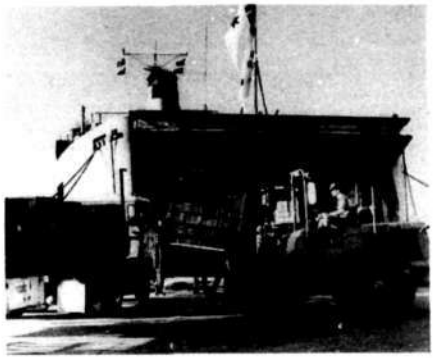
The imaginary country, Orangeland, was situated in the Coral Sea, so that it was within striking distance by air and sea, of the Shoalwater Bay Training Area.

The Orange Naval and Air Bases were located at Townsville and Mackay which were designated as "safe-havens" during the exercise.

The Shoalwater Bay Training Area used for K81 is located north of Rockhampton on the central Queensland coast. The area has a varied range of terrain and a frontage to long open beaches and some sheltered water in Shoalwater Bay. Outside the Shoalwater Bay Training Area is Marlborough — the location for the Logistic Support Force and the air, road and railhead for land forces entering or leaving the exercise area. Kunwarara, on the road and railway line, and next to a small airfield was the site for the Joint Force Headquarters.

PHOTO SUMMARY

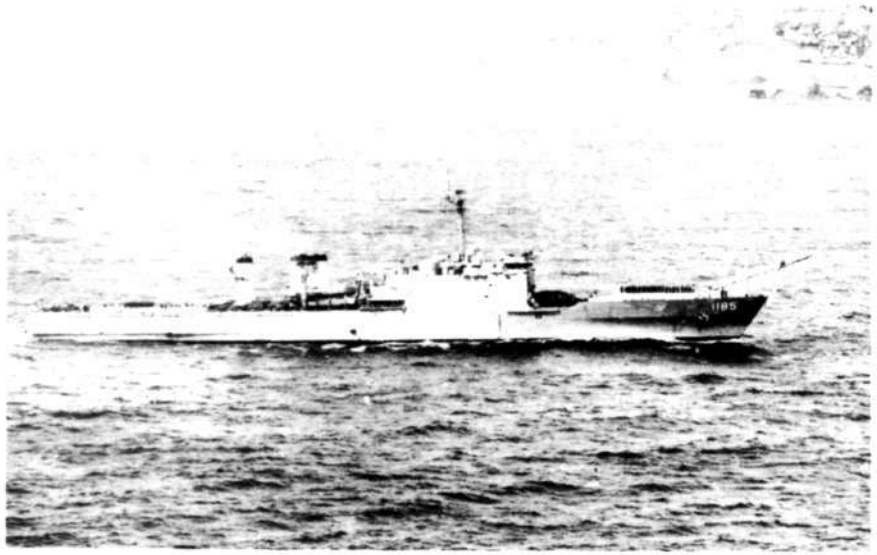
The following selection of photographs, taken by Defence Photographers, illustrate some of the different phases of Exercise Kangaroo 81.



For exercise Kangaroo '81 the Navy's training ship HMAS JERVIS BAY assumed a new role — the ferrying of Army men and equipment to the multi-nation exercise. At Garden Island the ship's huge vehicle deck was loaded with Army stores and equipment, including fork lift trucks and vehicles bound for the exercise area. The equipment was then off-loaded through the stern door into landing craft for transport ashore. It was the first time JERVIS BAY had operated in the joint Navy/Army role. *(Photo — RAN.)*

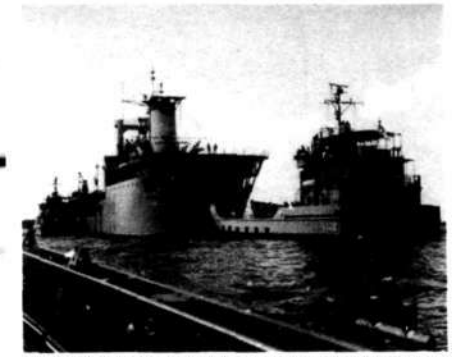
USS OKINAWA, with one helicopter aloft. Her starboard elevator is lowered. Note the Sea Sparrow missile launcher before the island superstructure. *(Photo — RAN.)*

For the aircraft carrier HMAS MELBOURNE, an integral part of K81 activity, a watch on the main US Amphibious Task Group was carried out both before and after the main landing at Shoalwater Bay. This photo shows the RAN Flagship as it took station with the US ships. The 20,300 tonne aircraft carrier HMAS MELBOURNE (foreground) shepherds the American ships USS OKINAWA (left) with her load of 26 helicopters, immediately ahead of USS DENVER, while USS ALAMO, another troop-carrying vessel, can be seen in the distance. OKINAWA is the second of America's Iwo Jima class amphibious assault ships. HMAS MELBOURNE is about 30 metres longer, as is evident in these aerial pictures, as well as having a displacement advantage of 2,000 tonnes. (Photo — RAN.)

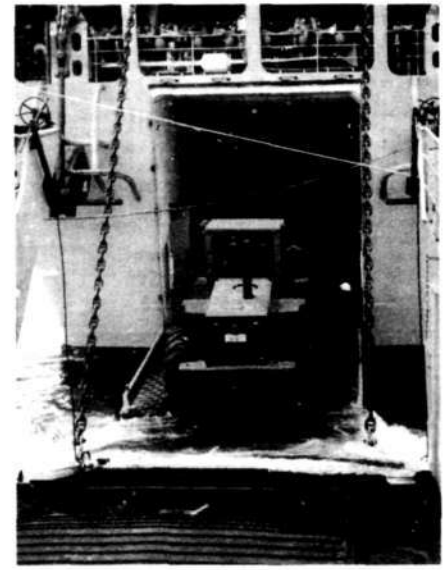


USS SCHENECTADY arrived in Sydney on 16th October as part of a four ship amphibious group from the United States. (Photo — Ron Wright.)

Mail delivery run by a Grumman Tracker from the Amberley RAAF base to the senior Blue Force ship, HMAS MELBOURNE. (Photo — RAN.)



HMAS TORBRUK discharges cargo from her rear door into HMAS BALIKPAPAN, a heavy landing craft, near Rockhampton. TOBRUK also unloaded cargo simultaneously from its bow doors and over the side by crane into LCHs. K81 proved to be the initial operational use of the RAN's new amphibious lift ship, HMAS TOBRUK. TOBRUK received a full load of cargo for the "war zone", comprising eight trucks, 21 land rovers, four cranes, 17 trailers, one low-bed trailer, three 20 tonne container trailers, three conexes, 13 motor bikes, two 30 cubic metre fridges, nine fork-lifts, two mini mokes, one bulldozer, one front-end loader, a Wiles Cooker, pallets of fuel, dump trucks, five beach lighting sets, 10 KVA generators, two harbour master units for naval lighterage equipment, three billy huts and assorted cargo. (Photo — RAN.)



The build-up of stores and equipment at Rockhampton, Qld, for K81 involved some tricky ship-to-ship transfers at sea between HMAS TOBRUK and the LCH HMAS BETANO, before they could be landed at Port Alma. (Photo — RAN.)

USS OKINAWA. (Photo — RAN.)

Newest member of the Orange Force was HMAS WARRNAMBOOL, seen here leaving Townsville on a search and destroy patrol. (Photo — RAN.)

HMAS BETANO receives heavy Army equipment from HMAS TOBRUK for transport to Shoalwater Bay. (Photo — RAN.)

The Prime Minister, Mr Fraser, saw for himself how Australia's senior military officers will fight any future war. Mr Fraser paid a visit to the Australian Defence Force Command Centre in the Defence Department complex at Russell on 29th October. The Centre was being manned day and night to allow the Chief of Defence Force Staff, Admiral Sir Anthony Synnot, to direct forces defending Australia during K81. Admiral Synnot explained the progress of the fighting to the Prime Minister while the Chief of Joint Operations and Plans and Exercise Director for K81, Air Vice-Marshal S. D. Evans, looked on. (Photo — RAN.)

USS PERRY at her launch on 6th April, 1920. Twenty years later she was lying on the bottom of Darwin Harbour. Her guns were salvaged and used for coast defence in Western Australia.

The "Flush Deckers"

KNOWN VARIOUSLY as "flush deckers", "four pipers", "four stackers" or even "tin cans", the 272 units of the "Wickes-Clemson" class destroyers built for the US Navy between 1917 and 1922 represent the largest class of destroyer ever built. It is exceedingly unlikely that we shall ever see such large numbers of one class of ship again constructed.

by HARRY ADLAM

When the United States entered the Great War in 1917, it was short of all classes of warships (except battleships). A large scale effort was required to make up the deficiencies in the destroyer force. The final design selected was a flush decked destroyer, a type which would give the naval students a field day. Were the "Wickes-Clemson's" good ships, or were they "America's Greatest Naval Blunder" as one American writer described them. Their four thin "smoke stacks" certainly gave them a distinctive appearance to say the least, and was to be regarded as the typical American destroyer for many years.

In comparison with the British "V's" and "W's", the general dimensions and armament were very similar. With the flush deckers the length overall was 314 feet, the beam 31 feet, with a deep load draught of 9'9". Standard displacement was 1060 tons, deep loaded to 1247 tons in the "Wickes" group, but rising to 1308 tons in the "Clemson's". The latter group were given increased oil fuel capacity.

The armament carried by the ships was impressive. Four 4 inch 50 cal QF guns, one 3 inch AA gun and twelve 21 inch torpedo tubes in four triple deck mountings, gave the class an impressive broadside. One four inch was sited on the foc'sle, two were sided on a deckhouse built between the second and third funnels and the fourth sited on the quarter deck. The fourth was later re-positioned on the roof of the after deck house. Torpedo tubes were carried on either beam, two banks of three on each side of the ship and not on the centre line as was common British practice.

A designed speed of 35 knots was called for. To obtain this speed a saturated steam turbine machinery installation was used. Four boilers, each with its own funnel, were carried in two boiler rooms. As with British practice, 3 drum boilers were employed. By utilising the closed exhaust from the auxilliary machinery, ships of the class could make about five knots, but otherwise the machinery was conventional.

By adopting the single design for this large class, mass production could be exploited, and some very commendable building times were recorded. In the case of USS "WARD" the ship was only 17½ days on the stocks, and when launched the masts and even some of the boats and their davits were in place. Laid down on May 15, 1918, "WARD" was launched on June 1 and commissioned for service on July 24, 1918. It must be remembered that these were rivetted ships, not welded as in the next war.

At the time of the Armistice, forty-four units had been completed. The remainder were finished by 1922 and six were cancelled. Many naval historians have criticised the completion of the programme as the United States Navy could not begin to receive any new destroyers for many years to come and was unable to keep astride with modern development. Until USS "FARRAGUT" commissioned in 1934, the flush deckers were the only destroyers in commission in the US Navy.

Many four stackers spent most of their life in reserve, and indeed more than one was commissioned and then steamed round to the reserve anchorage and immediately paid off.

When war clouds began to form in 1939, many of the old vessels were brought back into service, "WARDS's" case being typical. She had served a mere three years in commission when paid off into reserve on July 21, 1921 and had remained in reserve until she commenced a pre-commissioning overhaul on February 10, 1941. Three days later "WARD" commissioned for active service.

The Washington and London Naval Treaties witnessed the end of many flush deckers. A large number not scrapped under those treaties were converted into seaplane tenders, being re-designated AVP. Some had been converted into light minelayers in the 1920s (DM), and later a number were modified to high speed minesweepers (DMS). The remainder retained their DD designation.

In 1940, fifty flush deckers were transferred to the Royal Navy, and whatever their faults the British were glad

All Photos — USN Courtesy A. D. Baker III

to get them. The Royal Navy modified the class to suit convoy escort work. In some ships this meant reducing the height of the three after funnels, removing the after four inch gun and the after banks of torpedo tubes. In others, the ships ended up with one four inch on the foc'sle and a British 12 pounder in place of the US 3 inch gun aft. The latter was a sensible change there being plenty of 12 pounder ammunition in stock.

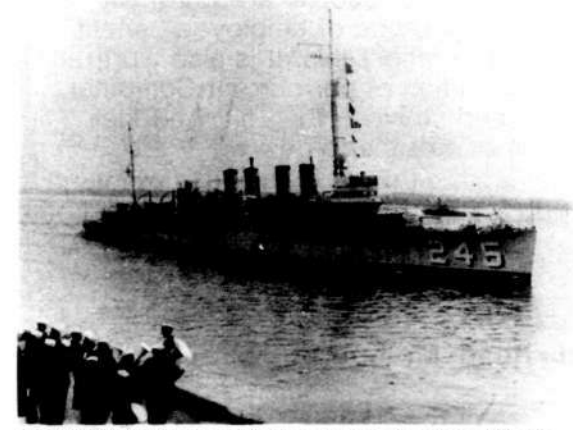
In Royal Navy service, opinion of the flush deckers was quite divided. Some called them "a heap of garbage", whilst others claimed they were very ruggedly built ships. It is admitted that the Britishers who were most vocal in their criticism were the type who believed that only Britain could build ships, and that other nations simply could not. Most however, considered that the flush deckers were good ships. They *all* agreed that the four stackers rolled a lot, but then again, the contemporary "V & W's" were not noted for being the steadiest of ships. The Royal Navy were glad to get them, that is for certain.

Following the United States' entry into WW2, the flush deckers underwent numerous alterations. Some were fitted for escort work, and in ships so selected, one boiler was removed to allow for increased oil stowage. With three boilers they still were able to make 30 knots at sea. The escorts were re-armed with six 3 inch 50 cal dual purpose guns, and had the after banks of torpedo tubes removed. The funnels were reduced in height, the resultant appearance being quite pleasing.

A new type of ship was required to transport troops and land them from the ship's own boats. A number of flush deckers were selected for this conversion. Being a major refit, two boilers were removed. Four landing craft had to be slung in luffing davits, and the armament also reduced. After conversion to the APD type, it was found that up to 200 troops could be embarked for up to 48 hours. Armament in this case was usually four 3 inch/50s and up to nine 20 mm Oerlikons.

In 1941 one hundred of the type remained in service as destroyers, and indeed the Asiatic Fleet comprised all flush deckers. This particular group became renown in the actions around the East Indies. The dubious honour of being the last ship sunk in this campaign went to the flush decker USS "POPE". In what was probably the first really aggressive act of the campaign six flush deckers carried out a night attack on the Japanese transport fleet at Balikpapan, but due to a combination of various factors (faulty torpedoes and an excess of speed being but two), the attack did not receive the results that should have been obtained. *Quite a few ships were sunk certainly, but* driving in and out of lines of ships at 27 knots at night did not make for great accuracy with either gun or torpedo. Better results were obtained from the torpedo. If there was one powerful weapon the flush deckers boasted, it was certainly the 4 inch 50 cal gun. Unfortunately it was fitted in a pedestal mounting that only allowed for 20° elevation, the main reason for it being replaced by the DP 3 inch 50. At the raid on Balikpapan the 4 inch 50 cal was used to good advantage.

USS ROPER in August, 1943. Still retains four funnels, but is re-armed with 3 inch DP guns, after torpedo tubes removed, and searchlights replaced by 20 mm Oerlikons.



USS REUBEN JAMES, the first US destroyer lost in the Second World War. She was sunk by a German U-boat 31st October, 1941, while America was still neutral.

The first submarine sunk by the US Navy in WW2 was a victim of a flush decker. Some hours before the Japanese sneak raid on Pearl Harbour, USS "WARD" had located a Japanese midget submarine trying to enter the port. In very poor light "WARD" fired one round from Number 1 gun, and one round from Number 3. The shot from Number 1 missed, but Number 3's shell hit the submarine at the base of the conning tower and sent it to the bottom.

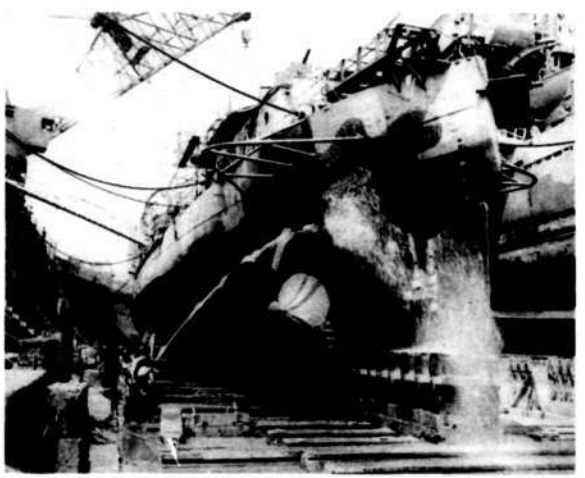
When USS "ROPER" sank the German U85 on the night of April 13-14, 1942, she gained the honour of being the first US ship to sink a submarine in WW2.

On the other hand another, a flush decker, had the very unfavourable distinction as being the only US destoyer

Ex-USS STEWART, shown on arrival at San Francisco in 1946, after her recovery from Japan. She was not given her old name back as it had been alloted to a new destroyer escort.

to serve in the Japanese Navy in WW2. USS "STEWART" was in a floating dock at Surabaya in March, 1942, as the Japanese were approaching. Due to incorrect shorting up by the local dock workers, the old flush decker fell off the keel blocks. A scuttling charge was fired, and the ship struck off the US Navy Fleet List. The Japanese managed to repair the ship and put her to work as "No 102". After the war the ship was towed back to the United States, and sunk as a target. "STEWART" was not the only Allied destroyer to serve in the Japanese Navy. This distinction is equally shared by HMS "THRACIAN" and HsMs "BANCKERT", British and Dutch respectively.

During Darwin's air raid on February 19, 1942, USS "PEARY" was amongst the ships in the harbour. She got under way and sped for the open sea. However five bombs on her centre line put an end to her run. The well known naval writer J. E. MacDonnell witnessed her end from the upper deck of HMAS "WARREGO". His description of the end of "PEARY" is a good one. It tells of how even as the old ship was slipping below the surface, one gun was still firing at her attackers. He describes this act as "guts, sheer and unadorned".



USS OSMOND INGRAM.

Most of us are familiar with the gallant act of HMS "CAMPBELLTOWN" charging the lock gate at St Nazaire in France. "CAMPBELLTOWN" was an ex-flush decker built as the "BUCHANAN".

War service proved that the flush decker was a strongly built ship, and when the later "Fletcher" class was designed the old flush deck design was again used. All US destroyers built between the launching of "FARRAGUT" in March, 1934, and the launching of "O'BANNON" in March, 1942, had been built with a raised foc'sle similar to British practice. That the flush deck was stronger cannot be denied, even if it didn't look as handsome as the raised foc'sle. Since the "FLETCHERS" to the present date, *all* US destroyers have been flush decked.

Taken all round, the "Wickes-Clemson" class were impressive sea boats, possessed a good turn of speed and carried a sufficient armament. They were designed for one world war but earned their name in the next. By 1939 they were for all intents and purposes obsolete, but lasted the distance very well. Admittedly they rolled a lot, but then has any destroyer not rolled? The distinctive four stacks became a world-wide recognition feature for American Destroyers for 20 years and certainly could not be mistaken for any other class. Whatever the naval student may personally feel about the flush deckers, one salient observation is quite clear. Whether they were destroyers, light mine layers, fast mine-sweepers or fast transports, they did the job and did it well. They could face practically any weather, and they had a profile that was singularly their own.

In British service much talk was made about the flush deckers being top heavy. The weighty American 4 inch 50 was replaced in many of them and then to add a few more doubts, some were rebuilt with towering bridge structures that must have made them roll considerably. As a class the 50 ex-American boats of the RN did well. Nine were transferred to Russia, and nine manned by the Canadians, plus a few by the Norwegians. Fifteen U-boats fell victim to the British flush deckers. One particular ship, HMS "ST ALBANS" not only sank the German submarine U401, but also sank the British minesweeper "ALBERIC" and for good measure the Polish submarine "JASTRAB".

After the war the flush deckers were not retained by the US Navy, and by 1947 all had been scrapped. When Russia returned the loaned flush deckers to the United Kingdom in 1949, they were immediately sold. By 1953, the last of the old four pipers had gone for ever.

Australian Foreign Policy

by GEOFFREY EVANS

Slow hand clapping by members of the Chinese Navy greeted crewmen of HMAS SWAN during the destroyer-escort's visit to Shanghai in September, 1980. (Photo — RAN.)

A feature of this year's annual meeting of the Navy League was an extremely interesting address by Mr A. R. Parsons, Deputy Secretary of the Department of Foreign Affairs, whose subject "Australian Foreign Policy with particular reference to Regional Relationships" is very relevant at the present time.

The defence policies of most countries and the shape of their national armed forces are determined in the main by the judgements of governments and their advisers on the likely course of external events in the years ahead, including an assessment of possible threats to national security or domination by another power, and external objectives in general.

In the Western countries at least, governments change periodically and sometimes quite frequently, and if each change was to be accompanied by a new foreign policy the effect on the country's defence force could well be disastrous; certainly any kind of long-term planning would become impossible.

Fortunately Australia has been well-served by its foreign affairs advisers over the years and there have been few dramatic changes in either foreign or defence policies, or changes not understood by the general public, by successive governments.

One of the major changes which did take place resulted from World War 2 when, as Mr Parsons explained, our *geographical position* at the southern end of Asia commenced to become more important than our *historical background* as an essentially European — overwhelmingly British — community. Mr Parsons in fact commenced his address by describing Australian foreign policy as "a competition between our history and our geography". A synopsis of his address follows.

Mr Parsons referred to four major developments which distinguish today's world from earlier periods:

- the emergence of the United States and the Soviet Union as super-powers in a class of their own;
- the all-pervasive influence of nuclear weapons and the continuing danger of their spread to small States;
- the emergence of a new group of over 100 countries known collectively as the Third World;
- Economic expansion and industrial growth, considerably greater than at any other period in history, but with unevenly spread benefits;

and to important developments including the emergence of China from post-war isolation, and the USA and USSR entering into a period of detente — encouraging events which have not lived up to their promise — and to economic problems in the developed countries which have inhibited their ability to help those developing.

Mr Parsons assesses the outlook for the 1980s as "at best uncertain and disturbing: It is likely to be a period of instability and tension in international relations. The arms race between the super-powers could well accelerate. In the West there is a major challenge in seeking to hold back Soviet adventurism".

Alliance: Mr Parsons makes it clear that the ANZUS Treaty, together with our shared interests with other Western-

A Chinese rating showed interest in the Australian SLR rifle during SWAN's visit to China. (Phot — RAN.)

aligned nations, is the foundation of Australia's security and the basis of our foreign and defence policies, and that the Treaty " . . . offers the ultimate guarantee of our security and adds a substantial measure of stability to our region". Referring to the credibility of the United States and its capacity to deter Soviet aggression or adventurism, he states . . . "our security and that of our region cannot be separated from the global balance", a statement incidentally fully supported by the Navy League.

The Asia-Pacific Region & South-East Asia: Although S-E Asia is the region where Australia's first foreign policy initiatives were taken, and where our Armed Forces have been involved for forty years, our sphere of interest is much wider and includes China, Japan and the South Pacific. *ASEAN* has been "one of the real success stories so far as regional organisations are concerned" involving as it has the reconciliation of previously antagonistic members of the group and its development into a cohesive, effective body. Support for ASEAN is central to Australia's regional policies.

Following the withdrawal of the major European colonial nations, except France, from the *South Pacific*, Australia as a relatively strong economic country has become the principal power in an area which includes eleven independent States and self-governing entities. Apart from PNG and Fiji, they are small island states with growing populations, and limited resource and development prospects. Each however has an EEZ of 200 miles and together they cover a large section of the Pacific Ocean. Australia obviously has a considerable interest in promoting the stability, integrity and development of these countries in an area in which so far the interests of the super-powers have not clashed, although there are signs of growing interest.

Australia supports self-determination for the French territories of *New Caledonia and French Polynesia* . . . "potentially the most sensitive issue confronting the region in the immediate future".

Mr Parsons feels that we sometimes overlook *New Zealand*, despite the fact that "our foreign policies, history, cultures, and economic imperatives are closer to each other than to any other country". The two countries are at present examining closer economic co-operation which in the long-term could have significant implications and attractions for both.

Australia has extensive and close relations with *Papua New Guinea*, the largest and most developed South Pacific State whose geographic position and resource wealth have enabled it to look further afield and to develop political and economic relations in South-East Asia, and with Japan and China. Although our assistance has begun to diminish PNG remains the largest recipient of Australian development assistance expenditure — over $240 million a year.

North Asia: Mr Parsons considers this to be a region of vital interest to Australia . . . "it is a region where super- and major-power interests intersect and is a potential source of conflict". It also includes Japan, our major trading partner, accounting for 27% of our exports and 19% of imports, and China, with which we have recently concluded a technical co-operation agreement.

With regard to Japan Mr Parsons states ". . . the futures of Japan and Australia are becoming increasingly interwoven, and the impact that Japan is having on Australia is being felt not only in industrial and technological areas, but in the social field as well . . . its impact on our economy speaks for itself".

After referring to the United Nations, our membership of which "means Australia is often involved in issues well beyond the regions of its principal concern", Mr Parsons referred to relations between the developed and the developing (or Third World) countries which, he states, have remained remarkably united despite wide political differences and an immense disparity in the levels of their economic and social development.

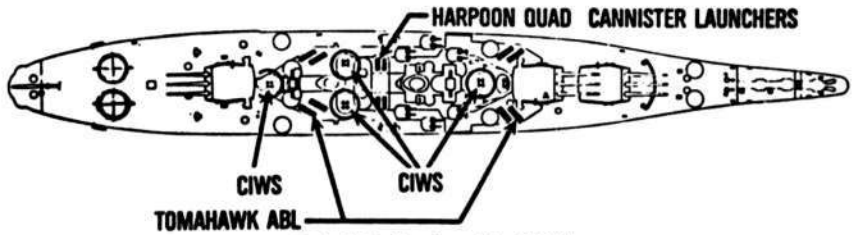
The North/South dialogue has been going on for several decades and according to Mr Parsons is presently stalled, due in part to a failure by some major "North" countries to appreciate the basic issues involved, and by the reluctance of some important "South" countries to compromise on what they see as necessary concessions by the North.

Unless the problems are resolved, Mr Parsons foresees serious instability in many areas of the world and states "Poverty and under-development, particularly when exacerbated by such factors as natural disasters or large influxes of refugees, are in themselves recipes for political dislocation and disaster".

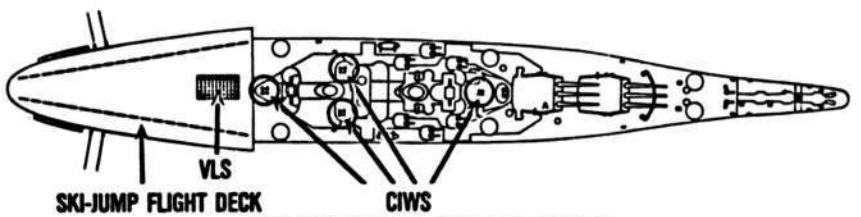
Mr Parsons concluded his address by stressing the importance of public acceptance of and support for government foreign policies. He said . . . "it would be fair to say that all major political parties share the view that the achievement of national consensus on the broad aims and objectives of our foreign policy is a singularly important element in the development of that policy. Our society allows free and open debate and while there will not be a full consensus on every issue, the fundamental objectives of the government's foreign policies are based on broad domestic support and understanding".

In all, it was a very thought-provoking address.

Resurrecting the "DREADNOUGHTS"



Battleship Configuration — Phase I Initial.



Battleship Configuration — Phase II Potential Growth.

THE concept of a high-speed battleship for the United States Navy originated in 1937 and resulted in the four-ship Iowa class. Although six were authorised and actually laid down, two were cancelled.

IOWA was the first ship to commission, followed by NEW JERSEY, MISSOURI and WISCONSIN. The machinery driving the four dreadnoughts produced 212,000 shp for a maximum speed of 33 knots. The principal armament comprised nine 16 inch and twenty 5 inch guns, supported by numerous 40 mm, 20 mm or machine guns.

Only MISSOURI remained in commission after World War Two, the other three being laid up in 1948 and 1949. The outbreak of the Korean War saw all four again active, but by 1958, all had returned to the mothball fleet. After more than ten years in reserve, it was announced that NEW JERSEY would reactivate for service in the Vietnam War on gunfire support duties. Despite an extensive refit with its associated costs, NEW JERSEY operated from only April, 1968, to December, 1969, before returning to reserve.

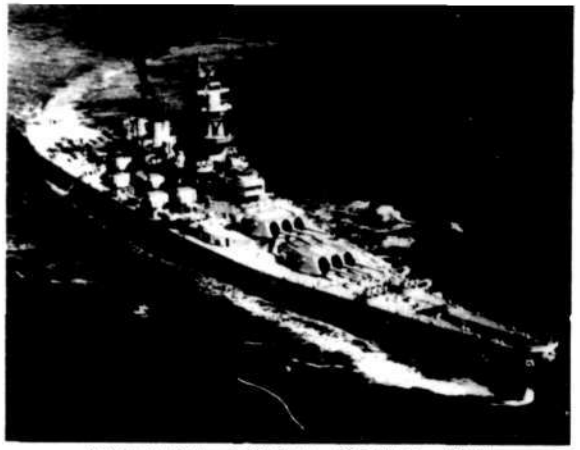
From time to time, conversion of one or more of the Iowa class has been advocated. Some early proposals investigated the possibilities of converting the ships into high-speed missile monitors, or force bombardment and assault ships. Despite these and many other calls for reactivation, IOWA, NEW JERSEY, MISSOURI and WISCONSIN remained in an immobile state.

Following election of the Reagan administration in late 1980, the chance of some of the Iowa's returning to service gained momentum. The new Government's supplement to the Carter administration's budget allowed for $88 million, plus $3 million for research and development to begin reactivation, the bill being signed by President Reagan on June 5, 1981.

NEW JERSEY, the first to undergo reactivation, was moved from the Bremerton Naval Shipyard to Long Beach, arriving there on July 27. The work will be performed in two stages, with the 1969 base-line configuration referred to as Phase 0. Phase 1 includes reactivation and modernising the ship for recommissioning on April 7, 1983, after which she is scheduled to make her first Indian Ocean deployment that year.

The reactivation will include removing four 5 inch 38 calibre gun mounts to make room for eight Tomahawk cruise missile launchers for 32 missiles and to install Harpoon (four quad launchers for 16 missiles) and the four Close-In Weapon System (CIWS) onboard. NEW JERSEY's communications suite will be replaced with equipment similar to that found on a Belknap class cruiser. In addition, the AN/SLW-32 electronic warfare system with its automatic signal processing and analysis capability will be installed. The ship will also receive the AN/SPS-49 long range air search radar with IFF antenna. The Navy Tactical Data System (NTDS) will not be installed during Phase 1. However, the ship will have the ability to receive Link II data from other units.

Phase II of NEW JERSEY's reactivation commences when the ship enters its first regularly scheduled overhaul. Modifications being explored include the removal of No 3 turret and replacing it with a ski-jump type flight deck, hangar and elevators for use by VSTOL aircraft.



USS IOWA off Hawaii, 28th October, 1952. (Photo — USN.)

Also being considered is the installation of a vertical launch system (VLS) which would increase the ship's missile armament, the AEGIS Weapon System as one of its variants and three NATO Sea Sparrow basic point defence missile systems. A complete NTDS system could also be installed during Phase II.

The Navy has estimated that the outlined reactivation and Phase I modifications to NEW JERSEY will cost about $326 million in fiscal year 1982 dollars. To get two Iowa class battleships to sea and fully modernised, so that they can exist in modern wartime environment, will likely cost between $700 and $900 million, because the second BB will require more work than the NEW JERSEY.

In comparison, to construct one unit of the Virginia class, a guided missile nuclear-powered cruiser, the nearest modern US Navy equivalent to an Iowa, would cost $1.2 to $1.6 billion and take six years.

In terms of her service life, the NEW JERSEY is only about 13-years-old. The service life of a ship is defined as the wear and tear on the ship's hull, machinery and equipment resulting from active use. When constructed, a battleship was built with a life expectancy of 30 years. This means that the Iowas still have between 17 and 20 years of active service left.

The Secretary of the Navy has insisted to Congress that the ultimate cost of reactivating NEW JERSEY (BB-62) will be no more than $326 million, although there are few who believe that; the others, because of their condition, will cost considerably more. IOWA (BB-61) is due to recommission in 1985, MISSOURI (BB-63) in 1986, and WISCONSIN (BB-64) in 1987, (BB-61 and 64 are in Reserve at Philadelphia on the east coast). Already, however, some work has been done on IOWA (BB-61) at Philadelphia.

The battleships are currently armed with three triple 16 inch gun turrets, 10 twin 5 inch turrets and 20 40 mm guns. They are armoured to withstand multiple hits by 16 inch projectiles, which have a destructive power far greater than almost any anti-ship missile deployed at present. At a full load displacement of 58,000 tons, they can achieve ranges of 15,000 nm at 17 knots in rough seas, 5,000 nm at 30 knots and maximum speeds of 35 knots, powered by eight oil-fired boilers driving four shafts via four geared turbines.

For comparison, the Soviet Navy's large nuclear-powered battle cruiser KIROV is estimated to displace a "mere" 23,400 tons at full load and is likely to have a maximum speed of about 34 knots.

KIROV's armament fit, however, is much more modern and, although the ships are unlikely to meet, her 20 vertical launched SS-NX-19 missiles would give her a major range and accuracy advantage over the Iowa class vessels, as presently armed, in surface engagements. The US Navy does not intend to use the Iowas primarily for anti-ship engagements, but it does plan to fit them with large numbers of missiles, including anti-ship, surface-to-air and anti-submarine types.

The primary role of the ships will be shore bombardment, with the 16 inch guns, 1,500 km range conventional cruise missiles and possibly a version of the 150 km-range Assault Breaker missile currently under development to defeat company-size tank formations with "smart" submunitions. The aircraft and helicopters, if added in Phase II, would be used mainly to provide reconnaissance and forward observation facilities for shore bombardment, although the Harriers could also fulfil limited secondary roles of local air defence and close air support of friendly troops ashore (eg US Marine Corps units or troops of the Rapid Deployment Force). The helicopters could also undertake some troop lift, casualty evacuation, liaison and possibly ASW tasks.

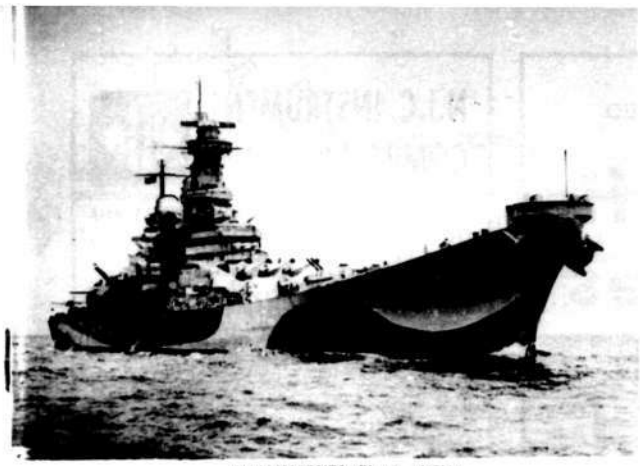
During peacetime, the updated Iowas would provide a powerful and impressive "presence". In wartime, they would provide a major fire base as part of a task group supporting US troops deployed ashore, or the forces of a friendly nation which had called for US assistance. The use of long-range missiles could save heavy losses of tactical aircraft to modern, Soviet-supplied air defence systems.

On their initial deployments NEW JERSEY and IOWA are likely to have to rely primarily on carrier-based aircraft to air defence, which means operating together with a full US Navy task group.

In terms of new armament, MISSOURI and WISCONSIN, for which funds have not yet been requested, could benefit significantly from a time delay. Earlier this year, the US Navy completed land-based tests of its new multi-missile Vertical Launch System (VLS) developed by Martin Marietta, having fired seven General Dynamics SM-1 and SM-2 Standard surface-to-air missiles, one McDonnell Douglas Harpoon, one Honeywell ASROC and one GD Tomahawk from sites at White Sands, China Lake and Point Magu. Sea trials, including a further 10-12 firings, are now about to start aboard the USS NORTON SOUND, prior to fitting production VLS in the Navy's new Aegis cruisers and possibly also DD-963 and future DDGX destroyers.

Aboard the Aegis vessels two VLS missile magazines, or farms, will be installed flush with the deck, one forward and one aft of the superstructure. Each magazine will contain eight eight-cell modules, or "eight-packs", for a total of 64 cells per magazine. A strikedown crane for replenishment of missiles at sea occupies three cells of a magazine, so the Aegis cruisers will have a total of 122 vertical-launch missiles ready to fire below deck. One 61-missile magazine and crane occupies the same space below deck as the 44 missiles of the Navy's more conventional Mk 26 Mod 1 rail launcher.

The advantage of fitting VLSs aboard the MISSOURI and WISCONSIN, and perhaps retrofitting them later to the NEW JERSEY and IOWA, is that they could be readily installed in the large, armour protected "hole" that would be provided by removing the aft 16 inch turret and below-deck magazine. This space is sufficiently cavernous to allow a massive battery of 320 of the 63.5 cm square individual launch cells, in 40 "eight packs", to be fitted. At a price



USS MISSOURI. (Photo — USN.)

estimated by industry sources at $300,000 per cell, procurement of a 320-cell VLS would cost some $96 million.

The Iowa class battleships were all originally fitted with two stern-mounted catapults and a recovery crane for three float-lanes used as spotters for the guns. During the Korean War, the catapults were removed and helicopters were carried instead of the float-planes.

The proposed installation of a raised 99 m (325 ft) flight deck is dependent on removal of the aft 16 inch gun turret. Replacement of the turret by a 320-cell VLS is expected to allow sufficient space for a forward-facing ski-jump ramp on either side of it, plus at least one deck elevator. The existing quarter-deck would thus become a hangar deck. There would, in fact, be some overhang of the flight deck and, although proponents do not expect it to have much effect on ship stability, this remains to be confirmed by detailed design and tank testing of models. It is estimated that up to 20 helicopters, or 12 helicopters and eight VSTOL Harriers, could be accommodated.

For peacetime missions, it is suggested that an Iowa class battleship so modified could operate as a relatively autonomous unit. If still remaining below-deck space were used to accommodate a 700-man Marine Corps battalion landing team, their transport could be provided by the embarked helicopters. In a wartime situation, with the battleship operating as part of a task group, the group's LHA amphibious assault ships would act as the primary bases for vertical lift, while the battleship — positioned closer inshore — acted as both a fire base and a staging base for gunship helicopters and VSTOL aircraft.

Sources used in the compilation of this article included:

"Bigger Punch for BB's" — "Observer", 21/10/81.
"The Fact Behind the Thunder" by Samuel L. Morison — "Proceedings", August, 1981.
"US Navy Bringing Back the Battleships?" by R. D. M. Furlong — "International Defense Review", June, 1981.

Broadside view of USS MISSOURI, camouflaged in October, 1944. (Photo — USN.)

BOOK REVIEWS

"AUSTRALIA'S ARMED FORCES"

Published by
NAUTICAL PRESS
Edited by
ROSS GILLETT
Contributors
Brian Alsop, Ross Gillett, Michael Melliar-Phelps
Price $39.95

REVIEWED BY: HARRY ADLAM

If you are a taxpayer and wish to know how your money is being spent when it concerns defence, then here is your chance to find out.

"Australia's Armed Forces" covers all three services in regards to the equipment *they use, have on order, or is held in* reserve. Much detail is supplied, but one thankful point is that the details are not *too* technical. In this way the layman can get a very good idea of just what is to be expected without getting bogged down with too many figures and formulae. Many a good book has been spoilt by becoming too much a list of tables. Such is not the case in this work.

The book is well illustrated with over 350 black and white photographs and line drawings to illustrate the equipment being described. The contributors have worked hard acquiring first hand information and it shows. The colour section of "Australia's Armed Forces" spans 24 pages, illustrating the widest possible range of Navy, Army and Air Force equipment. A foreword to the book was prepared by the Chief of Defence Force Staff, who described the 336 page volume as "the first Jane's type book to describe Australia's defence forces".

Each of the armed services is alloted a section, commencing with the Royal Australian Navy. All vessels from the unknown lighters and workboats to the flagship and FFG's now building and commissioning in the United States are covered, and covered well. The selection of illustrations for this section leave nothing to be desired. Maybe our flagship is wearing out, but she still has a strike capacity and as such warrants the coverage given her. Naval aviation is well documented. The reader can appreciate how the navy is armed and how it is supplied on service.

The Army section covers everything from the pistol the officer hangs on his belt to the Leopard tank that is the armoured forces main strike weapon. Field artillery, machine guns, sniper rifles; you name it, and you'll find it in this book, fully described and illustrated.

The same can be said for the Royal Australian Air Force. All RAAF aircraft are discussed and illustrated with superb photographs and line drawings. That small section of the Air Force that gets little publicity, the Marine Section, is well covered.

An addenda section updates the book to November, 1981, including the decisions regarding the new carrier, mine-hunters and F18 Hornet, to name only a few. The RAN is allotted 140 pages, Army 100 pages and Air Force 80 pages.

If you are concerned with defence, then this is the book you will certainly want to obtain. "Australia's Armed Forces" is not a history, this is defence as it is at the present time. What we have and what we hold in reserve, that is what this book is all about. Highly recommended.

"THE SHIPS AND AIRCRAFT OF THE US FLEET"

BY
NORMAN POLMAR
Published by
ARMS & ARMOUR PRESS

REVIEWED BY "GAYUNDAH"

The requirement is for ten guided missile cruisers. An order for only six is placed. Two are cancelled due to rising costs. Four are eventually commissioned, but without the fully planned armament and after construction delays and further cost increases.

A familiar storyline of a fleet in decline — the United States Navy. The major problems facing the US Fleet, finance, ship numbers and the difficulty in manning even the ships remaining in service, is proving to be an ongoing problem during the 1980s.

Despite the policy of the new Reagan Administration of more ships and more men, the US Fleet "will probably decline from the current 460 odd active Navy-manned ships to possibly as few as 350 ships", claims Norman Polmar, the author of the latest edition of "The Ships & Aircraft of the US Fleet".

Despite pessimism surrounding their future fleet, the Americans are now well advanced in respect to a number of projects:

- Although two years behind schedule, USS OHIO, the first new nuclear-powered strategic missile submarine has successfully completed her trials and a further eight are approved.
- Thirty-seven Los Angeles class nuclear-powered attack submarines have now been approved for commissioning by 1987. Later units of the class will be specially fitted for carrying twelve Tomahawk cruise missiles.
- SLEP, the Service Life Extension Programme for attack carriers is well underway, with the first, USS SARATOGA, expected to rejoin the fleet in 1983.
- The world's first nuclear-powered carrier, USS ENTERPRISE, is also undergoing a major overhaul, including the replacement of her original and distinctive island by a more conventional structure.
- USS NEW JERSEY, the World War II built battleship is receiving a major *overhaul to prepare for her return to* service in 1983, with refits for her three sister ships to follow.
- The first of the new Ticonderoga class guided missile cruisers was launched in 1981. Later units of the class will be armed with the EX41 vertical launch systems to provide a faster and more flexible missile firing capacity as well as a larger magazine capacity.
- Plans are in hand for an advanced guided missile destroyer, the lead ship for approval in 1985.

In addition to the above-mentioned items, the US Fleet is receiving a continuing flow of new construction FFGs; the four ex-Iranian Kidd class DDGs are now completing; and all but one of the 31 strong Spruance class destroyers have been commissioned.

"The Ships & Aircraft of the US Fleet" is a well written and profusely illustrated volume of the present American Navy. Each class of ship is described via the visual tabular material and then discussed in detail. Preceeding each type of ship an introduction informs the reader of the current status, future plans and a table listing numbers — active, building, naval *reserve force and in reserve.*

Nothing has been overlooked, down to

small service craft and amphibious landing vehicles carried by larger ships. Special chapters are devoted to naval aircraft, weapons and electronics, plus the Coast Guard and the National Oceanic & Atmospheric Administration fleets.

Appendixes provide such data as ship classifications, shipyards and disposals since 1970. The book is completed by a comprehensive index and finally an addenda.

The "Ships and Aircraft of the US Fleet" spans over 420 pages and is well designed for both the reader and researcher. In its present form it is the ultimate reference work on the current US Fleet. Recommended.

"HISTORICAL NAVAL EVENTS OF AUSTRALIA — DAY BY DAY"

BY LEW LIND
Published by A. H. & A. W. REED
REVIEWED BY ROSS GILLETT

"Historical Naval Events of Australia" is a very comprehensive day by day record of the RAN, its ships, its battles and its men. Over 4,000 separate listings describe in a few lines each the well-known, the unusual and intriguing side-lights to our naval heritage.

The book spans the period from the 1700s to 1980, with each of the 366 days being allotted one full page. Events pertaining to that particular day are then listed year by year. The majority of pages are supported by a photograph of one or two of the events described. The photographs range from reproductions of early pencil sketches to personalities, artists' impressions, onboard shots and battle scenes. Many famous RAN ships are illustrated including rare views of HMAS PENGUIN in 1913, the QUEEN MARY in Sydney 1940 and a field gun drill at Williamstown Depot in World War One.

Like any publication, errors will creep into the book and "Historic Naval Events of Australia" is no exception. The only one I wish to correct is the caption from the Queensland MIDGE built in 1887, which is more correctly described as a turnabout torpedo launch or picquet boat than a 2nd class torpedo boat.

The book's index and bibliography are the most comprehensive I have seen in many years. A glossary of common nautical terms is also included to round off what is a most interesting and new publication. Recommended.

SYDNEY HARBOUR OF YESTERYEAR

By JEFF TOGHILL
Published by A. H. & A. W. REED PTY LTD
REVIEWED BY HARRY ADLAM

There is something always happening on Sydney Harbour, photographers find it an excellent place to test their skills.

It has always been the same since the camera was introduced to Australia. Some of the old timers, using the glass plate equipment, produced some masterpieces of photography and it is indeed very refreshing to see a book such as Sydney Harbour Of Yesteryear published. It contains a wonderful collection of glass plate reproductions taken by one of the pioneer photographers of Sydney, William James Hall.

For many years these plates languished in the archives of the Royal Sydney Yacht Squadron, gathering dust and receiving no attention. They were un-earthed by Jeff Toghill, who saw at once the importance of them, and he put them into book form so that we all may take a nostalgic look at Sydney Harbour from the 1890s to the early 1930s.

Most of the photos are devoted to the sailing skiffs on Sydney Harbour. We are treated to the sight of the old open skiffs with their enormous spreads of canvas, battling it out with the champions of the day. Some of these .iffs were quite large boats and I for one was surprised that 24 foot skiffs raced on the harbour. The 18 footer was always the big boat in my boyhood days, but the 21's and 24's are to be seen in all their splendor.

Sydney Harbour is a picturesque place at any time, but in the days before the skyscrapers it was even more beautiful, as these old photos show. Naval vessels have used the harbour ever since the arrival of the first fleet, and in the later part of the nineteenth century these ships were usually painted in very attractive livery: black hulls, red boot topping, white water line, buff funnels and a white band around the upper deck. There are some lovely shots of these old timers, one in particular which caught my eye. The photo showed the old Australian Auxiliary Squadron coming up harbour in two lines, with the flagship firing a salute. This photo is a gem. When it comes to sailing in small boats, the navy was well to the fore, and there are some very rare shots of some of these old service sailing boats. A gig under full sail was a beautiful sight, and William Hall evidently appreciated it, as an excellent shot of one of these graceful craft is included, together with the sturdy old dipping lug cutter.

Not only sailing races were held on the harbour in those far off days. The strong men of Sydney often raced in large open pulling boats, and in Hall's collection we see them at it. There is a very good close up of two 32 foot naval cutters "slogging it out" and as an added bonus, in the background are the admiral's barge and a 56 foot steam boat. These types have gone from the harbour now, and it is only in books such as this will most of us get the chance to see just what they looked like.

This is a book worth waiting for and if you like sailing it is an essential requirement for your library. If you like the harbour, but are not sold on sailing, you will still like Sydney Harbour of Yesteryear. I could not put in down once I saw the dust jacket. Thoroughly recommended to everyone.

ONE OF A KIND

Crusader (AV 2767)

by ROSS GILLETT

AV 2767. Note the gun sponson above the bow and the three portside entry points on the main deck for equipment. (Photo — AWM.)

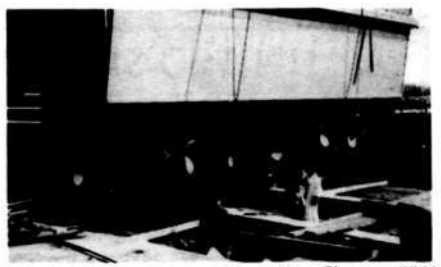
THE requirement to transport heavy Army equipment, including tanks and artillery during the Second World War, led to the construction in 1944/45 of the Australian Army's largest ocean-going vessel, the AV 2767, named CRUSADER

This unusual "warship" was designed by the office of the Army's Engineer in Chief, Major General C. S. Steele, as a shallow draft vessel, able to transport large tonnages. No bow or stern ramps were provided, the heavy equipment being loaded by her six 30-ton cranes or driven aboard via bridge-like structures, (6 in number), which were extended sideways from CRUSADER to the shore or wharf-side.

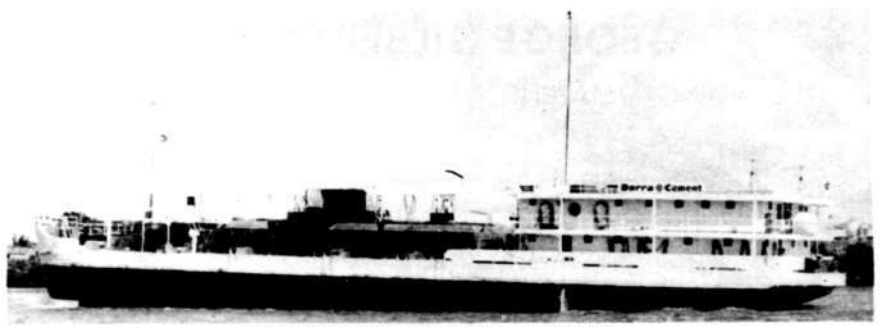
CRUSADER was assembled at Williamstown, Victoria, by the Melbourne Harbour Trust. Her decks and fore-end were manufactured by the Metropolitan Gas Company and the aft deckhouse by Australian Iron and Steel Pty Ltd. With all sections in place, CRUSADER was launched by Mrs Clive Steele on August 8, 1945. To facilitate construction a spoon-shaped bow and scow-shaped stem were incorporated into the design, the latter being cut on an angle to house the four rudders and six

AV 2767 at Williamstown, August, 1945. (Photo — AWM.)

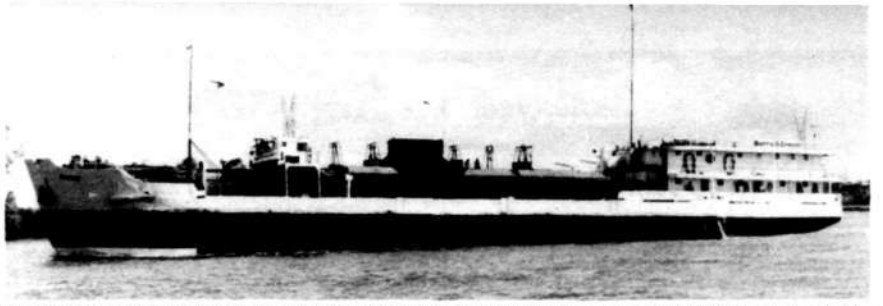
Immediately after launch, 8th August, 1945. (Photo — AWM.)



CRUSADER's six propellors and four rudders. (Photo — AWM.)



CEMENTCO, October, 1981. (Photo — Warwick Foote.)



CEMENTO ex CRUSADER in October, 1981. The original bridge deck has been removed and resited further forward. *(Photo — Warwick Foote.)*

propellors (see photo). Original plans had called for the construction of a sister ship, but work on the second vessel was suspended after the end of the war.

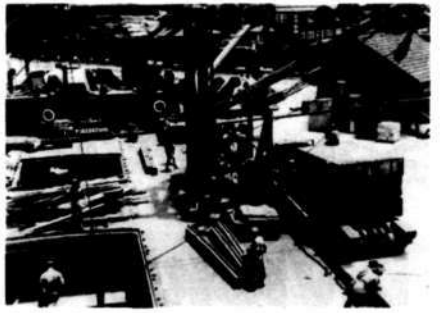
When completed CRUSADER measured 200 feet in length, with a beam of 50 feet and a draft of 12 feet. Power was provided by a Ruston & Hornby engine, driving the six propellors for a speed of nine knots with an endurance of 30 days. Her crew consisted of five officers and 26 other ranks, all of whom were accommodated in the aft superstructure. At the bow and stern (above the superstructure) emplacements for one and two guns respectively were provided for limited self-defence purposes. However, it is doubtful if any weapons were ever mounted.

CRUSADER could carry forty military vehicles on the main deck and discharge cargo at the continuous rate of 90 tons over her side at any one time. Below, the three internal holds could handle 1,600 tons of military cargo.

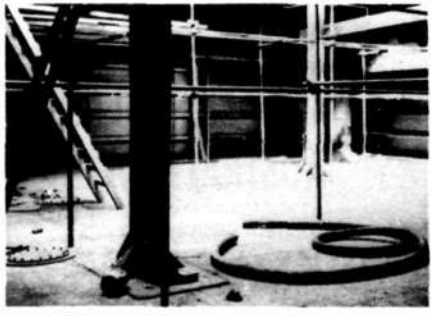
CRUSADER was not fully-operational by the close of war and instead of transporting equipment from Australia to the war zone, she proceeded in early 1946 to bring back equipment already there. After sailing to Rabaul, Lae, Aitape and Torokina, she transported a load of timber from Tasmania to the mainland, but was soon laid up and offered for sale.

The Queensland Cement & Lime Company purchased CRUSADER in 1947 and began converting her to a self-propelled coral barge. The former AV 2767 was renamed CEMENTCO, her wheelhouse cut free from the remainder of the aft superstructure and sited about 50 feet from the bow. All six cranes originally fitted were deleted and the hull cut to provide a 110 feet by 32 feet, 1,800 ton area for hoppers. Twenty-two openings, each 9 feet by 3 feet, were cut in CEMENTCO's bottom. Conversion work was completed in late 1948.

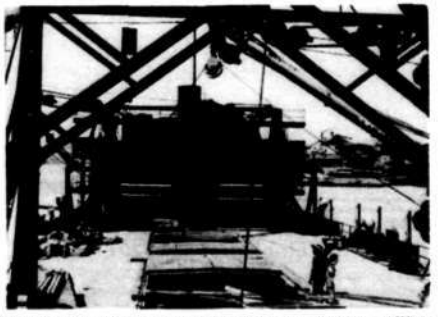
Thirty-three years after her conversion CEMENTCO remains in service on the Brisbane River, her gross tonnage now being 1,470 tons. Had CRUSADER been completed in time for war service instead of commissioning after the event, she would have undoubtedly provided a much better sea transport service for heavy equipment than was available. Until her commissioning the largest Army Water Transport vessels were the built-for-the-purpose 300-ton cargo ships and the ex-ferry conversions, GEORGE PEAT, FRANCIS PEAT and KALANG, all of which served in the Pacific area during World War Two.



Looking Forrard from the bridge. The wood transported from Tasmania is being offloaded onto the wharfside. *(Photo — AWM.)*



One of CRUSADER's three cargo holds. *(Photo — AWM.)*



In Sydney with the Tasmanian wood shipment. *(Photo — AWM.)*

WARSHIP PICTORIAL

Army Water Transport — World War II

More than 60 Army small craft laid up in Sydney late in World War Two. In the foreground are four small landing craft in apparent new condition. Behind them is a row of 40 foot workboats and to the right, AB 431. The latter, named COBAKI was by 1944 according to Army, believed to have been sunk. Astern of COBAKI and the workboats are small harbour tugs and launches. *(Photo — AWM Neg No 123760.)*

AB 442, named FRANCES PEAT was classified as a powered lighter able to transport fourteen 3 ton trucks or 60 jeeps. She was originally constructed as a car ferry for the Hawkesbury River and was completed during 1930. In the above photo she is moored in Jacquinot Bay, New Britain November, 1944, with members of "B" company, 1st New Guinea Infantry battalion embarked. FRANCES PEAT was armed with two guns, one at the bow and the other just behind the funnel. Vehicular cargo could be loaded over the stern and parked on either side of the bridge structure. *(Photo — AWM.)*

Looking a little worse for wear, AM 642, SENORITA lies at her mooring on the Brisbane River. SENORITA was operated by the 1st Watercraft Workshop. *(Photo — Ron Wright Collection.)*

TARRA (AV 1379) was built in Hobart, Tasmania as one of twenty 300 ton cargo vessels. After the war she was retained in service and was eventually sold into private ownership. Another twelve vessels were constructed in Western Australia by the Australian Shipbuilding Board Annex. Each vessel carried four derricks of 15 cwt single lift capacity which could be doubled to take loads up to 30 cwt. Four light guns were mounted (two on the forecastle and two on the poop). *(Photo — Ron Hart.)*

The launch JULUS (AM 164) on trials on the Brisbane River, was like SHEILAH, located at Thursday Island. Her 25 hp Palmer engine gave her a top speed of five knots and a range of 240 miles. She was employed in the passenger and cargo transport roles. *(Photo — Ron Wright Collection.)*

Fleet Auxiliaries Down Under

by HARRY ADLAM

NUCULA refuels units of the Royal Australian Navy in Auckland, 1938. (Photo — RNZN.)

THE need to keep warships supplied at sea had been appreciated from time immemorial, but in the earliest days of steam this requirement became absolutely essential and special ships were acquired to carry fuel to the fleet.

In the most part they were ordinary merchant ships, but in these modern times, they have developed into a specialised type.

When the original Australian fleet unit was ordered before the First World War, one fleet oiler was ordered as part of the new squadron. She was named KURUMBA. On completion she was loaned to the Royal Navy, as her presence in Australian waters was not vital, seeing as though the bulk of the squadron was overseas.

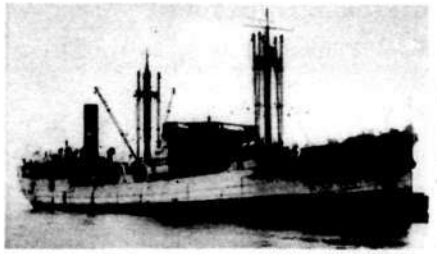
Built by Swan, Hunter on the Tyne, KURUMBA was laid down in September, 1915, and launched on September 14, 1916, being completed on December 7, 1916. She was then taken over "for the duration" as a Royal Fleet Auxiliary, and given the pendant X36.

Not a large ship as tankers go, KURUMBA was 378 feet long with a beam of 45 feet 6 inches. Fully loaded she drew 23 feet 3 inches. KURUMBA was capable of carrying a cargo of 6,000 tons of oil fuel, and her triple expansion engines of 2,300 ihp driving twin screws gave her a speed of 10 knots. Her defensive armament was one 4 inch BL and two 6 pounder QF guns.

Following her service with the Royal Navy she reverted back to RAN control in 1919 and on March 13, was commissioned as RAFA KURUMBA by Lt Cdr F. C. Planter.

During the good times, before the depression, KURUMBA was used as the fleet oiler, manned by a civilian crew, the same system in use by the Royal Navy. But all good times come to an end and in 1928, when general reductions were the order of the day, RAFA KURUMBA paid off into reserve on June 4, 1928.

During the First World War a large part of the fleet was coal fired and a fleet collier was ordered from Cockatoo Island Naval Dockyard. Laid down as Ship No 61 on October 21, 1918, she was launched on April 10, 1919, as BILOELA and was completed for service in July, 1920. BILOELA was quite an important vessel as far as the Australian shipbuilding industry is concerned, being the first ship to be built from purely local designs and materials.



BILOELA in her heyday. (Photo — AWM Neg No H 17414)

For her size, she was swiftly built, being on the slips for the short period of only six months. Her completion was not hurried, the war was over and the need for the ship was not as great as when she was originally ordered.

BILOELA was roughly the same dimensions as KURUMBA, length 371 feet, beam 54 feet with a fully loaded draught of 22 feet 6 inches. Her single screw was driven by triple expansion machinery of 2000 ihp, and her own fuel supply (coal) gave her a range of 5000 miles. Cargo carried comprised 4000 tons coal, 1250 tons oil fuel, and 50 tons fresh water. Her own coal bunkers held 1000 tons. She was fitted to take a 4 inch gun, but evidently this was never fitted, and she was also able to carry spare guns for the destroyers, a very elementary version of the fleet replenishment ship of today. Normally manned as a civilian fleet auxiliary, she was at times crewed by naval personnel during times of maritime union troubles.

On July 5, 1920, BILOELA commissioned under the command of Lt Cdr P. V. Hugo to begin her career replenishing the coal burners of His Majesty's Australian Squadron. In July, 1928, she joined KURUMBA in reserve.

As the modern fleet was mainly oil burning, the need for a fleet collier diminished. BILOELA was put up for sale and in March, 1931, the ship was sold to John Hvid, of Bergen, Norway.

Her career is worth following as she appears to have changed hands on a number of occasions. In 1932, her name was changed to WOLLERT and in 1937, she is listed as IVANHOE. Later her name was changed again to YOH HSING and finally CREE. She seems to have operated in various fields, mainly around Europe.

WW2 caught up with the old ship and in February, 1940, she was attacked by a U-boat, but managed to get away. This was only a short respite as she suffered mine damage two months later. However, in November, 1940, she succumbed to a U-boat torpedo in the Atlantic. The only reminders of BILOELA in Australia today appear to be a half model in the War Memorial at Canberra and her bell, which is presently the fire bell at the Army's School of Artillery at North Head, Sydney.

Upon the outbreak of war in 1939, KURUMBA was pulled out of reserve, armed with one 4 inch QF gun and 4 machine guns and sent back to work. She commissioned on September 4, 1939.

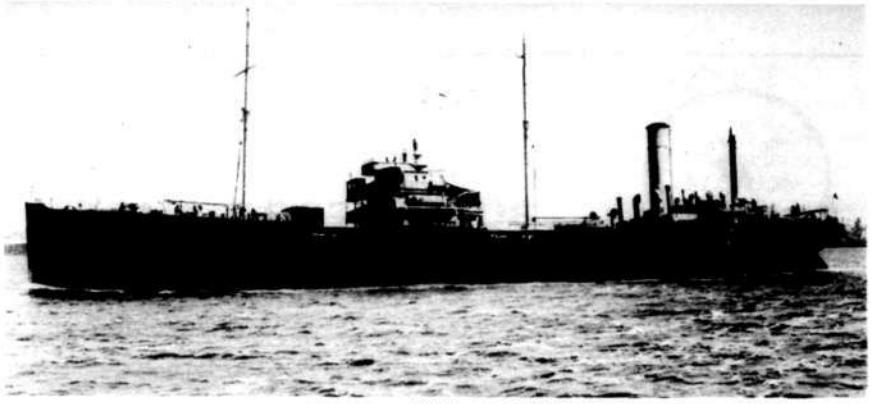
Her war service appears to have been an unglamourous one, carrying out her duties without much fuss.

In 1946, she was to be seen alongside the banks of the Brisbane River, de-storing and preparing for disposal. War experience had shown that a 10 knot tanker was not the ideal supply ship for a modern navy. De-storing completed, she paid off on July 29, 1946, and was put on the "for disposal" list.

On January 30, 1948, she was sold to Artimis Maritime Company of Panama and under the name of ANGELIKI, she left Australian waters. She was 32-years-old, had served in two world wars and in two navies. KURUMBA served in a civilian capacity until being broken-up in 1966.

* * *

The New Zealand Division of the Royal Navy was a two cruiser and two sloop division. As the cruisers were oil burners, it was decided to hire an oil tanker from the Royal Navy to supply precious liquid. The ship selected was the RFA NUCULA, a ship



KURUMBA. *(AWM Neg No H 17512.)*

that had been built by Armstrong's in 1906 as HERMOINE, but was later named SOYO MARU. Purchased by the Admiralty just before the Great War, NUCULA was typical of the oil tanker of her day. Machinery aft, with all cargo tanks forrard.

Her dimensions were almost identical with those of KURUMBA, she was 370 feet long, a beam of 48 feet 6 inches and a full load draught of 24 feet 3 inches. Her triple expansion engines, turning a single screw, would push her along at 10.5 knots when new, but by the beginning of WW2, it was very doubtful if she could approach this speed.

With wartime expansion in New Zealand after 1939, it was quite evident that the New Zealand Division would need more oil fuel than NUCULA could carry in her tanks. The naval base at Devonport was growing and amongst the new construction were large oil tanks ashore NUCULA was by this time worn out, but she could still perform an important duty. She thus became a harbour tanker in Auckland Harbour. The old tanker was not the prettiest ship in her new career and in fact during her final days she appeared as a derelict hulk. Her bridge works slowly fell to pieces, not that they were required any longer as NUCULA's sea-going days had passed by and she was referred to as an oil barge. On completion of the oil tanks ashore NUCULA drifted into the backwaters and just disappeared from view. Her passing largely went un-noticed, as is the case with most fleet auxiliaries.

Although not fighting ships, the fleet auxiliaries were important ships, ships that were essential for the smooth running of the squadron. Without them life would have been much harder for the fighting vessels.

In these modern times the fleet auxiliary has become regarded with much more respect. The Royal Australian Navy possesses one oiler, HMAS SUPPLY, manned by Navy personnel. Perhaps the industrial troubles with BILOELA were remembered, and Navy Board decided that never again would the fleet fuel supply ship be held up in port because she could not obtain a crew. Whatever the reason may be, SUPPLY is a fully fledged member of the Navy and does not hold the title of a fleet auxiliary.

Her well kept appearance gone, NUCULA still served as a stationary harbour tanker in the dark days of World War Two. *(Photo — RNZN.)*

The European Report

Naval News from the Continent by ANTONY PRESTON*

Royal Navy

Since the last report in September, the Royal Navy has picked itself up from the floor and is getting on with the business of doing the best it can with what it has left.

On the debit side of the new support carrier HMS INVINCIBLE has been offered to Australia at a cost of £175 m, to be available in 1985. The offer would solve the RAN's dilemma of how to get a replacement for HMAS MELBOURNE in the shortest time, but begs the question of what aircraft would fly off her. One solution being put forward here is to adapt the McDonnell Douglass AV-8B to take the advanced avionics of the Sea Harrier, thus turning it into an "Advanced Sea Harrier", with much more performance but still with the vital avionics to suit it to the maritime environment.

Chile is reported to have put in a bid for the DLG HMS NORFOLK and the replenishment ship TIDEPOOL, both ships being axed next year. New Zealand has cancelled its plans to re-engine the frigate TARANAKI and instead will buy the Ikara-armed LEANDER class HMS DIDO and her broad-beamed sister BACCHANTE.

The good news is that the third BROADSWORD class frigate, HMS BRILLIANT was delivered in June and the seventh of the class was ordered on August 27. Work is proceeding on the design of the successor, the Type 23, but these will not be started until 1983 at the earliest, and therefore an additional Type 22 will probably be ordered. The first of a new class of nuclear hunter-killer submarines, the TRAFALGAR, was launched at Barrow-in-Furness on July 1. Two more are building, the TURBULENT and TIRELESS, and TALENT, TORBAY and TACITURN are planned, reviving the names of the immortal "T" class of World War II. They are very similar to the preceding SWIFTSURE class but with special measures to improve quiet running, including anechoic tiling on the outside of the hull.

The Royal Naval Equipment Exhibition (RNEE '81) at Whale Island generated some more good news, with the surprise announcement that the British NSR 7525 heavyweight torpedo will be ordered, and not the American Mk 48 ADCAP. The new torpedo is a long-range wire-guided weapon intended to run at 55 knots down to 3000 ft, to match the Soviet ALFA class nuclear submarines. It will be the first British torpedo driven by a turbine, and also the first to use thermal propulsion since the ill-fated Mk 12 or "Fancy", whose HTP fuel exploded and sank the submarine SIDON in the mid-1950s.

Another bonus point was the winning of the Hong Kong patrol boat order by Hall Russell of Aberdeen. This traditional trawler-building firm capitalised on its experience in designing and building the successful "Island" and "Castle" class offshore patrol vessels to design its own patrol craft. Against all odds, Hall Russell has won the contract for all five. The Hong Kong Government is to pay 75 per cent of the cost and the ships will be known as the PEACOCK class, reviving names of the BLACK SWAN class sloops.

Federal Republic of Germany

In May the first of the new BREMEN class (F-122) type started her trials, running out of Bremer Vulkan's shipyard in Bremerhaven, while not far away the first MEKO frigate, the Nigerian ARADU started her trials from the Blohm and Voss yard.

The BREMEN is an adaptation of the Dutch "Standard" or KORTENAER class, generally similar apart from having General Electric gas turbines instead of Rolls-Royce, and a German command-and-control system instead of Dutch. The MEKO, on the other hand, is a revolutionary departure in ship-building. The concept was developed some years ago by Blohm & Voss in an effort to cut down the time taken to build warships, and it relies heavily on pre-outfitted modular packages of weapons, radars and other bulky items, broken down into standard container-sizes. The designers claim that a MEKO frigate can not only be assembled in half the time but is also very simple to repair or refit, since each container can be extracted and replaced.

The argument against the MEKO system is that it involves extra weight and that the use of standard container-sizes places tight constraints on future equipment, and it is interesting to see that the German Navy has not backed the idea. However, Argentina has followed the Nigerian lead, with four ALMIRANTE BROWN class of slightly modified design, an extra helicopter, French missiles instead of Italian and Rolls-Royce gas turbines. Whatever else can be said for and against the MEKO it is well armed; a 5-inch dual-purpose gun, eight surface-to-surface missiles and a Sea Sparrow SAM-system and four twin 40 mm Breda Compact gun-mountings providing point-defence.

France

The second of a new class of nuclear-killer submarines, the SAPHIR was launched at Cherbourg on September 1.

She and the RUBIS are the first "nuke" attack boats built for the MARINE NATIONALE, and another four are planned. They are unusual in having a smaller reactor than other SSN's and SSBN's, and it is claimed that the designers have departed from the classic SKIP JACK type which has hitherto been virtually standard. The first of the class will be in commission by 1983.

On September 14, the Peruvian missile-boat HERRERA left Lorient for home, marking the end of a successful programme. Six Exocet-armed FPBs were ordered jointly from Lorient Arsenal and the SFCN yard at Villeneuv-la-Garenne on the Seine. They resemble the better-known COMBATTANTE type, with an OTO-Melara 76 mm gun forward and four Exocet missiles amidships but differ in that the design is an official one emanating from DTCN. Two similar craft have been built for Morocco and one for Senegal.

Greece Buys From the Netherlands

In July the Hellenic Navy announced that it would be buying a second KORTENAER class frigate.

The first, HS ELLI, (ex-PIETER FLORISZ) was commissioned at Flushing on October 10, and the second, named LIMNOS, had already been launched as the WITTE DE WITH; she is expected to commission next summer. The names commemorate two Greek ships of the Second World War, a light cruiser torpedoed without warning by an Italian submarine in 1940 (eight months before the out-break of hostilities) and an old battleship sunk by Stuka divebombers at Piraeus in April, 1941.

These "Standard" frigates are proving an outstanding success, well suited to the demanding North Atlantic environment, equipped to the highest standards, and yet sufficiently flexible to be adapted by the Federal German Navy and to appear as an air-defence version. There are plans to lay down a thirteenth KORTENAER hull next year, armed with the Standard surface-to-air missile, and it is rumoured that the ships built to replace the Greek frigates (also to be called PIETER FLORISZ and WITTE DE WITH) will be of the same type.

*NAVAL EDITOR, DEFENCE.

The new Dutch "Standard" frigate HNIMS PHILIPS VAN ALMONDE seen at Portsmouth during her work-up in September. *(Photo: MoD (Navy)/FO Portsmouth.)*

The Greeks hope to have four frigates, but the second pair would most probably be built locally at Skaramanga. The Hellenic Shipyards have built a series of COMBATTANTE III missile boats under French supervision and are keen to advance their capabilities. However, the recent landslide election-win by a Left Wing party which has stated its opposition to NATO may jeopardise these ambitious plans.

The Dutch are also likely to win a contract to build three modified KORTENAERS in Lisbon. The Portuguese Navy wants to replace its elderly ALMIRANTE PEREIRA class DEs but lacks money, and so NATO has come up with an ingenious solution. Member-countries will donate items of equipment, a "payment in kind" which will be deducted from their NATO contribution. There will also be contributions of cash for the use of air bases in the Azores and the proceeds from the sale of four redundant frigates, all of which will save the Portuguese scarce foreign exchange and at the same time enable them to contribute worthwhile anti-submarine forces to NATO.

Meanwhile the Dutch KORTENAERS continue to come off the assembly line. The fifth ship, PIET HEYN commissioned in April, while the PHILIPS VAN ALMONDE was running contractors' sea trials in September. The WILLEM VAN DER ZAAN was launched in May, leaving only one of the original twelve still on the building slip. As they complete, the doughty old destroyers of the FRIESLAND class are paid off. The UTRECHT, LIMBURG, AMSTERDAM and GRONINGEN and the older HOLLAND have all been sold to Peru and now the ROTTERDAM and the DRENTHE have joined them, leaving only the OVERIJSSEL. The DRENTHE was damaged by a boiler room fire last November and was still unrepaired, so presumably she has only been bought for "cannibalisation" by the Peruvians.

New Italian Frigates

The first of the new class of anti-submarine frigates, the MAESTRALE started her trials in September minus all sensors and weapons apart from the 5-inch gun and in the same month her sisters *GRECALE* and *LIBECCIO* were launched at Muggiano and Riva Trigoso, respectively.

The design is an expansion of the successful LUPO class, *with extra accommodation and two A/S helicopters at the* expense of half the number of SSM's. Otherwise the hull is similar, but 50 ft longer and 5 ft wider. The weaponry is also arranged differently from the LUPO, with the Sea Sparrow SAM-launcher forward instead of aft and the Breda Compact twin 40 mm guns moved up one deck and sited further forward.

The first of the LERICI class GRP minehunters is expected to commission by the end of the year, and four more were ordered by Malaysia last February. The Italian craft will use the Italian MIN remote-control disposal vehicle but the Malaysian Navy has just bought the latest Mk IV version of the French *PAP-104.*

Soviet Submarine Incident in Sweden

On October 28, a Soviet WHISKEY-V submarine numbered 137 ran aground off the Swedish naval base at Karlskrona.

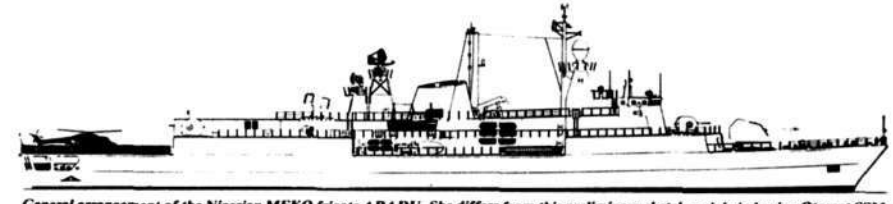
There she lay for some days while an understandably irate Swedish Government demanded an explanation from the captain and his superiors. Finally the Russians had to capitulate to Swedish "offers of help" when a gale blew up, and the submarine was towed off the rocks.

Then on Thursday, November 5, the Swedish Prime Minister made a startling claim that radioactive material had been found on board, indicating "fuel" or at least nuclear weapons.

All of which is very strange, since there are now comparatively few of these elderly boats left in service, and they are notoriously noisy. If, as the Swedish Press claimed, No 137 was sent into Karlskrona to spy on top-secret trials, better submarines exist for the task than the noisy and large WHISKEY. They are diesel-electric boats, and so the scare-story about nuclear fuel can be ignored, but one must ask why a 25-year-old boat *should be rearmed with nuclear-tipped torpedoes? There is* an unconfirmed report that the Swedes picked up a radiation-count at 100 metres' distance from the submarine, which if true, indicates a dangerously high level inside the boat, particularly as the forward crew-space is also the torpedo-room.

If there is any truth in these allegations, the question that remains unanswered is why? If the Russians were out to snoop on the Swedes, they chose a singularly inept way to do it, and unless they were seeking to provoke an incident it does seem as if No 137 genuinely got lost. We can discount stories of guided missiles on board but there is no reason why she should not have been *carrying nuclear mines or torpedoes, since these weapons are* known to be in the Soviet inventory. The radiation leak could be explained by an over-sensitive Geiger counter — when the British submarine DREADNOUGHT's reactor first went critical boffins were alarmed to get radiation readings outside the hull, but the panic subsided when it was discovered that luminous watch dials were the source!

The trespassing submarine has now been sent on its way but the incident shows how vulnerable Sweden is to incursions by unfriendly craft. There have been several submarine contacts in the past, including one last year, but this one has convinced even *the doubters, and the Government's wish to make political* capital out of it is easily understandable.



General arrangement of the Nigerian MEKO frigate ARADU. She differs from this preliminary sketch mainly in having Otomat SSMs amidships. *(Illustration: Blohm & Voss.)*

NAVY LEAGUE DIVISIONAL & CADET NEWS

TASMANIA

The first stage of the TS EMU's new headquarters was opened on Saturday, October 24, 1981, on the foreshore, Wivenhoe, Burnie, Tasmania. The opening was performed by Mrs F. C. Nicholls, widow of the unit's former Commanding Officer (The Late Lieut H. J. Nicholls).

Before unveiling a commemorative plaque, Mrs Nicholls said the commissioning was an occasion to review the Unit's 30-year-old history and thanked the many people who had contributed to the construction of the new headquaters.

Prior to commissioning the new headquarters, a de-commissioning ceremony was held at the old headquarters in River Road, Wivenhoe. This complex is to be retained by Navy League (Burnie Branch) for use by Naval Reserve Cadets as an indoor rifle range.

Attending the ceremony were some "Old Salts" including Dr Allan Gray, Surgeon Leut Commander, RAN (RTD), Mr James Loughran, DSM, RN, and the President of the Navy League (Burnie Branch), Mr Allan Robinson, BEM.

It is hoped to commence the second stage — a fully enclosed indoor parade ground — atop the new headquarters early in the new year. Provision has already been made by including a stairway to the concrete area above.

NEW SOUTH WALES

Family Sailing Day

On Saturday, September 26, 1981, three units from the NSW Division held a sailing day on Lake Illawarra (Wollongong). The units were TS ALBATROSS, Wollongong, TS CAMPBELLTOWN, Ingleburn and TS NEPEAN, Penrith. Over 300 people attended with 130 of these being cadets who participated in sailing, pulling and athletic events.

TS ALBATROSS took out all pulling events, whilst TS CAMPBELLTOWN proved too strong on the athletics field, winning all events. Sailing was restricted to an Open (trophy) event and a 14-16 years age group, due to the weather conditions and lack of time. TS NEPEAN won the age event, with TS ALBATROSS receiving the "Seabrook Trophy for Inter-Unit Sailing" in the open event.

A few "Age" events were contested, with the CO Lieut I. Chandler, TS NEPEAN, winning the officers track event and CPO COXN C. Carroll of TS CAMPBELLTOWN the instructors.

The parents committees of all units organised a barbecue lunch and purchased some 40 or more trophies for the presentation. It is hoped to continue this inter-unit competition in 1982, with swimming and athletics days at TS CAMPBELLTOWN and TS NEPEAN.

TASMANIA

OBITUARY

The Patron of the Tasmanian Division of The Navy League of Australia, Vice-Admiral Sir Guy Wyatt, KBE, CB, died in the Repatriation Hospital, Hobart on November 9, 1981.

Sir Guy, as he was better known, was born in 1893, and joined the Royal Naval College, Osborne, in 1906.

He volunteered for, and was accepted as, a member of Sir Ernest Shackleton's expedition to the South Pole, but was recalled to the Royal Navy when the outbreak of World War One was inevitable. In 1915, he was made a Lieutenant and in 1918 he commanded HMS BEAGLE.

Sir Guy joined the Royal Naval Surveying Service in 1918. In World War Two he commanded HMS CHALLENGER. From

1945-50 he was Royal Navy hydrographer and was made a Vice-Admiral in 1948.

Sir Guy and his wife, the late Lady Anne Wyatt, retired to Tasmania after World War Two. After the death of his wife, Sir Guy lived alone at Woodbridge in southern Tasmania for many years.

VICTORIA

Navy Week, Navy League Yacht Race

The race was again run under the auspicies of the Royal Yacht Club of Victoria, but for the first time was held on a Wednesday, (October 7) in the hope that the mid-week time slot would avoid clashing with other Navy Week events. In the past this has restricted entries from Navy and has prevented cadets from any participation.

The presence of some forty entries from Cerberus, Lonsdale, Naval Reserves and NRC, attested to the success of the change of day.

The race was started on schedule at 1810 with the following entries crossing the starting line:

Yacht	Skipper
Circe	J. Johnston
Red William	W. Hales
Diomede II	P. Brodie
Mirrabooka V	G. Jensen Muir
Revenge	P. Green
Apollo II	A. Becher
Obsession	H. Schilte
Roama	D. Jenkin
Temaraire	C. White
Clear Water	J. Keighery

The winners on corrected time were:

1. Mirrabooka V
2. Red William
3. Circe
4. Revenge

Federal and State Presidents of the Navy League were aboard Roma, but their august presence failed to place them amongst the placegetters. It is worth noting however, that Roama may have cut 5 minutes from her elapsed time had she not been required to go about to avoid the "Empress of Australia" as she steamed majestically down harbour. Her captain, fellow Navy League member Charles Flaherty will hear more of this.

In the clubhouse following the race, brief addresses were made by the Club Commodore, and League State President, with Commodore Harry Dalrymple making the presentation to the winning skipper.

Guests in addition to those menioned above, included Mary Tanner, State President of the Naval Association and some members of her executive, CO Lonsdale, Cmdr J. Speed and Mrs Speed and members of the League.

All in all a most successful event with the excellence of the organisation surpassed only by that of the hospitality extended over dinner thereafter.

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THE NAVY

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THE NAVY

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Vol 44 **APRIL, 1982** **No 2**

The post war Royal Navy carrier force at its peak. Three aircraft carriers exercising in the Mediterranean on 7th December, 1960. From top to bottom they are: HM Ships HERMES, ARK ROYAL and VICTORIOUS. One of 200 photographs and over 30 line drawings appearing in Norman Friedman's latest book, "Carrier Air Power", reviewed in this issue of "The Navy".
(Photo — Conway Maritime Press)

Cover Photo

HMAS ADVANCE, shown here as AMBUSH for the TV series Patrol Boat. *(Photo Chris Sattler, Navy & Marine Corps Museum)*

CONTENTS

HMAS PARRAMATTA

Post Modernisation Report

Although not a new ship, her four year 'face lift' is hoped to extend PARRAMATTA's operation into the 1990s. The update and modernisation project was based on the need for escort type naval ships that extend from the strategic basis of Australian Defence Policy (1971), the environment of the 1980s and the environment of future Australian Military Operations. The Australian maritime environment and the long term strategic situation is identified to maintain and foresee the requirements of a military power from Australia into the waters and airspace surrounding the continent. This policy includes escort forces at a substantial level not ignoring the requirement to update capabilities. The modernisation of PARRAMATTA is therefore in accord with future military requirements for the Australian environment.

The primary aims of PARRAMATTA's refit were:

(a) To extend the ship's operational life.
(b) Improve the ship's operational effectiveness.
(c) Reduce naval manpower requirements.
(d) Reduce displacement by about 60 tons.
(e) Improve habitability.

Trials off the New South Wales Coast in December, 1981. Note the triple torpedo tubes between Seacat and Ikara. *(Photo — RAN)*

HMAS PARRAMATTA has spent the past four years undergoing an extensive update and refit at HMA Dockyard Williamstown. On the 26th August, 1981, she was recommissioned and was handed over to the navy on the 14th November, 1981, twenty years after first having entered service.

The primary function of the ship is to perform escort duties within a task group or convoy and to operate offensively against submarines. In order to achieve this the ship is equipped with IKARA and two triple barrel surfaced launched torpedo tubes. Although the Mortar MK 10 was an effective explosive deterrent and free from interference in shallow water its limited range, high cost in manpower and weight led to its replacement by two sets of torpedo tubes.

As part of its escort duties the ship has retained SEACAT for limited contribution to the AAW defence of a force. The gun fire control system; Medium Range System MK 3 (MRS 3) was replaced by the lighter M 22 system. The latter system is compact and has superior performance particularly with regard to reaction time and operation. Add to its stability, reliability and ease of operation the manning factor is reduced by 40%. The ship's 4.5" gun mount which was completely refurbished has improved its reliability and extended its life.

Perhaps the most obvious change to the ship's appearance has been the redesign of masts and funnel. In order to reduce top-weight and to improve transverse stability the foremast and mainmast were reduced in size and redesigned to cater for the reduced radar outfit, new EW and communication aerials. The LWO 2 aerial was resited further aft and lower for improved stability and greater performance. The 'new look' funnel is designed to improve the flow characteristics of funnel gases.

Internally, modern practices and concepts have been applied to the operations room. Equipment improvements have effected radar displays, communications, gunnery fire control systems and electronic warfare equipment. The configuration of the operations room has achieved more space and provided a practical and workable environment.

HMAS PARRAMATTA. *(Photo — RAN)*

ACKNOWLEDGEMENTS

This issue of "The Navy" received assistance from Harry Adlam, A.D Baker III, The Australian War Memorial, Geoff Evans, Tony Grazebrook, Ron Hart, Vic Jeffery, Ray Jones, John Mackenzie, Historical Studies Section, Geoff Miller, Navy News, Navy Public Relations (Sydney and Canberra), Robert Piper, Antony Preston, The RNZN and Ron Wright.

DEADLINE FOR THE NEXT ISSUE WILL BE 7th MAY, 1982

Immediately on arrival in Sydney HMAS PARRAMATTA was surrounded by lighters and workboats as the ship took on ammunition and stores ready for a busy operational programme working up out of Sydney. *(Photo — RAN)*

Reduction in manpower, maintenance, weight and congestion have been the major influences on machinery changes. The machinery control room has remote and automatic control functions as well as direct displays on machinery states. Conversion from FFO to distillate has reduced maintenance of boilers and lessened the effect of funnel gases on masts, aerials ands superstructure as well as meaning easier use and availability. Steam atomisation of fuel into the boiler has permitted remote control of the boiler and a consequent reduction in complement. Auxiliary machinery layout has been simplified to allow better access to equipment and hull and also allowed for increased power generation capacity. Two 400 KW turbo alternators were replaced by two 750 KW turbo alternators for the increased loading caused by new equipments and greater air-conditioning.

HMAS PARRAMATTA left her sister ships DERWENT and STUART at Williamstown Naval Dockyard for home port Sydney in late 1981 and is currently undergoing work up training to take up her functional role in the fleet.

A Great Advance

by LEUT ROSS GILLETT
RANR, PRO

"Not only a morale booster to the Sydney Port Division, but a challenge to maintain and operate the ship." **That is how the commanding officer, Lieutenant Commander Peter Lyons describes the division's newly acquired patrol boat HMAS ADVANCE.**

HMAS ADVANCE, 1979. (Photo — RAN)

Together with nineteen other reservists from the Sydney Port Division, LCDR Lyons left Sydney for Cairns on Saturday, February 13, 1982, for the official handover from the Permanent Naval Forces. "Included in our crew of twenty are three men under the age of 21 years. We also boast a wide selection of trades from civilian life, including an electrician from the State Rail Authority, a Manager from the Commonwealth Employment Service, a production engineer and an EDP systems analyst", said LCDR Lyons.

ADVANCE's previous commanding officer, Leut Guy James, RAN, relinquished his command on February 13, following the patrol boat's intermediate docking at the shipyards of North Queensland Engineers and Agents Pty Ltd. ADVANCE sailed for Sydney on Sunday, February 21, after completing a base-assisted maintenance period. The voyage south included visits to Townsville, Bundaberg and Coffs Harbour.

The patrol boat arrived at HMAS WATERHEN at 1100, March 6, 1982, to a tremendous welcome. Following a brief maintenance ADVANCE will commence training cruises.

"As well as the weekend patrols, ADVANCE will be active on Tuesday nights for navigation and seamanship training, plus provide support for our divers as required", LCDR Lyons said.

Prior to her transfer to the Sydney Port Division, HMAS ADVANCE was employed in Bass Strait on oil rig patrols. Reserve personnel will maintain and crew their new ship with only limited assistance from the permanent forces. Like other units of the class, HMAS ADVANCE will be attached to HMAS WATERHEN.

HMAS ADVANCE at Eden, 10th May, 1981. (Photo — Ron Wright)

HMAS ADVANCE (left) and HMAS BOMBARD in August, 1978. Although BOMBARD carried the pendant No 99, she was re-numbered for her part in the television series Patrol Boat. (Photo — RAN)

Brief History

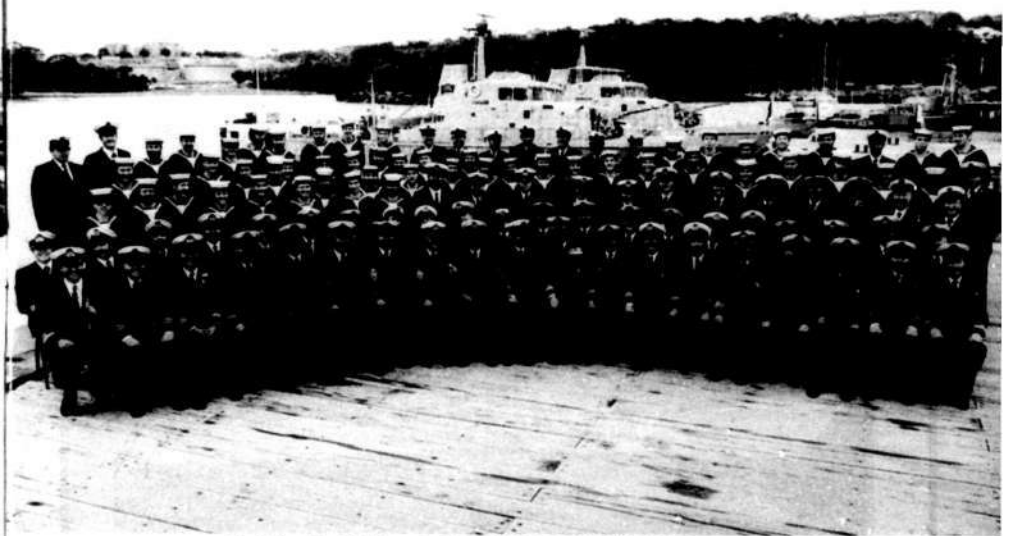
ADVANCE is one of twenty Attack class patrol boats built in Australia between 1967 and 1969. Twelve boats remain active in 1982, providing a capable coastal patrol force and a guard against intrusions into local fishing waters.

She was constructed at the shipyard of Walkers Ltd, Maryborough, Queensland, commissioning on 24th January, 1968. After completion ADVANCE proceeded to Darwin where she performed surveillance patrols in Australia's northern waters. During 1970 she assisted the survey ship HMAS MORESBY on surveys in the Broome-Port Hedland area. Later, in September, she visited Indonesia and Portugese Timor.

ADVANCE was awarded the Mine Warfare and Patrol Forces Proficiency Shield for 1970. Since the early 1970s she has served primarily in the coastal surveillance role, being lately based at Cairns, Queensland. During 1981 it was decided to transfer ADVANCE to the Naval Reserve Forces, Sydney Port Division.

BRIEF PARTICULARS

Displacement: 140 tonnes
Beam: 6.1 metres
Length: 32.8 metres
Draught: 2.2 metres
Speed: 24 knots
Machinery: Two Davey Paxman 16 YJCM diesels, 2 shafts, 2460 shp
Armament: 1 x 40/60 Mk7 Bofors, 2 x 0.50 Browning machine guns, 1 x 0.2 inch rocket flare projectors, plus a variety of small arms
Ship's Company: 20 officers and sailors



The Sydney Port Division at their base, HMAS WATERHEN, 1981. (Photo — RAN)

Geranium's Aircraft

A major concern of Australian Governments in the 1920s was poor quality charting of the Australian coast, particularly around the Great Barrier Reef. This concern had led, in 1921, to the formation of a Hydrographic Branch of the RAN regarded as important enough to survive Defence economies in 1922-23.

by RAY JONES

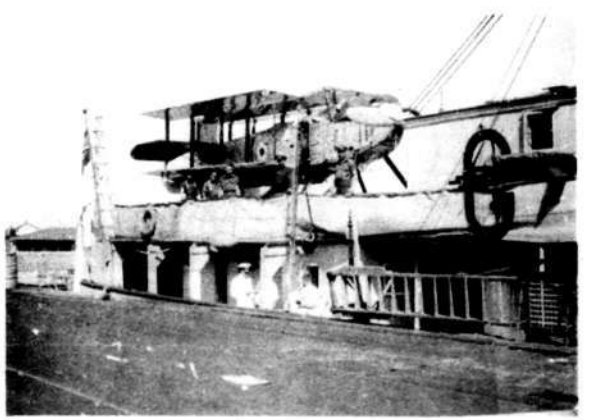
The branch had one ship, HMAS GERANIUM, a 1250 ton Flower class minesweeping sloop launched in the United Kingdom in 1915 and presented to Australia by the Admiralty at the end of the war. After recommissioning as a survey ship she worked around Tasmania or Queensland depending on the season, but she was the only surveying vessel available and was never going to finish the enormous task unaided. She needed assistance, preferably by some method of surveying large areas rapidly.

The idea of using aircraft to survey large areas rapidly was widespread amid post war aviation enthusiasm, and Admiral Jellicoe, in his 1919 report on the RAN, had recommended trials of aircraft in surveying as probably an effective way of preparing charts of northern Australian waters. Application of aircraft to such a clearly worthwhile national task was attractive to the infant RAAF as a means of justifying its precarious existence and of proving the value of aircraft. The Air Force also sought to prove that new aviation techniques could replace the Navy's traditional hydrographic procedures and equipment.

During 1923 Air Force aircraft from Point Cook assisted in preparing a chart of Westernport with aerial photographs. Success in this co-operation prompted plans for larger scale use on the Great Barrier Reef and a combined Service meeting in January 1924 agreed the RAAF would assist GERANIUM in the next survey season. The survey ship would work in an area of the Reef south of Cairns where the reefs were quite close to the coast and where several suitable bases for the aircraft existed. This meeting agreed that GERANIUM would embark an Air Force contingent of two officers and eight airmen operating one seaplane with an Air Force boat as tender to the seaplane.

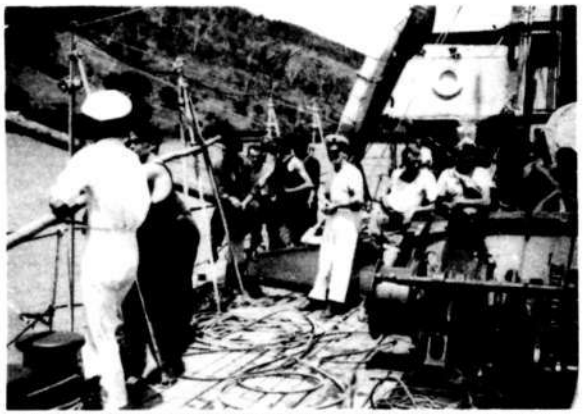
In February the survey ship was modified to carry the aircraft. She already had a kite balloon deck above the single deck superstructure right aft and this was extended further aft by 2.1 metres (7 feet) and fitted with wooden chocks and tie down points to secure the seaplane. Welded tanks were installed at the stern for aircraft and boat fuel and additional accommodation was built on the upper deck for the extra personnel embarked for the survey. These modifications added to the sloop's topweight and 17.3 tonnes of permanent compensating ballast was added but then the authorised coal load had to be reduced proportionally to preserve the draught.

Fairey IIID and the RAAF tender. *(Photo — H. Adlam)*



HMAS GERANIUM's Fairey IIID aboard the sloop. *(Photo — H. Adlam)*

The aircraft embarked would be a Fairey IIID seaplane of which the Air Force had six. This seaplane type had been selected by the Navy before the RAAF was established with the intention of using them in the Royal Australian Naval Air Service for cruiser embarkation and survey flying from shore. Tropical standard paintwork had been specified. At the end of 1922, after being handed over to the Air Force, they were found too big for RAN cruisers but remained in use at Point Cook for continuation training



Onboard HMAS GERANIUM during survey operations. *(Photo — H. Adlam)*

and pilot conversion. Now the seaplane would be tried out in the survey role.

As a test of its suitability for tropical flying over long distances, and as a boost to Air Force morale, one Fairey IIID set off from Point Cook (on 6 April, 1924) to fly around the Australian coast. The aircraft arrived back at Point Cook on 19 May after a most impressive and successful flight along the planned route. Despite problems with poor weather, low engine power and leaky floats the aircraft and crew performed very well indeed and fifty years later contemporaries of Wing Commander Goble and Flying Officer McIntyre spoke with respect of their feat of successfully alighting in the open ocean to repair the fuel system then taking off again without damage. Of more immediate relevance to survey work, in June 1924 a Fairey IIID visited GERANIUM in Sydney for trials of the deck and securing arrangements

GERANIUM left Sydney on 23 June, arriving at Townsville on 1 July; this would be her base for the rest of the year and she would embark the seaplane here. It had not joined in Sydney because its weight of 2291 kilograms (5050 pounds) on the relatively high platform was calculated as destabilising in rough seas. Carriage by GERANIUM in sheltered waters inside the Reef was assessed as safe enough but carriage in the ocean was not recommended. Departure of the aircraft from Point Cook was delayed while facilities in Queensland were finalised and it left on 1 August arriving in Townsville on 4 August. The rest of the Air Force party had travelled to Townsville by passenger ship, except for the survey pilot (Flight Lieutenant Mustard) who arrived in HMAS ADELAIDE.

GERANIUM spent most of July and August establishing survey marks in the survey area. During a surveying period between 5 and 15 August the aircraft was based in Townsville but twice flew out to GERANIUM and alighted alongside to report reef positions. Fuelling arrangements were successfully tested and the seaplane was hoisted inboard during the second visit. When the ship returned to Townsville the aircraft, boat and Air Force party embarked and the aircraft thereafter operated from the ship.

Embarked flying had two main purposes; first was visual reconnaissance to gain a general idea of the layout of reefs and to ensure the safety of the ship. Survey ships sometimes found isolated reefs by the undesirable method of striking them; in 1923, GERANIUM herself had stranded on previously unknown Disaster Reef in the Gulf of Carpentaria. Reefs submerged just below the surface, but invisible from a ship near them, are clearly visible from a low flying aircraft which can very usefully report their positions to the ship. GERANIUM described the aircraft as invaluable for the safety of the ship and essential for any survey ship working inside the Reef.

But the Air Board had not sent the aircraft along to ensure the safety of survey vessels, it wanted to test the aircraft as a survey unit in its own right. This independent surveying would be the second task for the seaplane. The hope was that vertical photographs from 10,000 feet could be joined to form a mosaic from which a chart could be easily prepared.

Experience quickly showed this was not possible; adjacent photographs could only be joined accurately if there were features common to both but the reefs were spaced too far apart to allow this essential overlap. The inability of photographs to portray the bottom in water deeper than 9.1 metres (5 fathoms) was a further drawback to using photography exclusively for hydrography since the bottom down to 55 metres (30 fathoms) had to be recorded.

GERANIUM realised conventional hydrographic techniques would be needed to define the positions of reefs but vertical photography could still be invaluable in charting the outlines of individual reef formations provided the photographic prints could be related to the hydrographers chart.

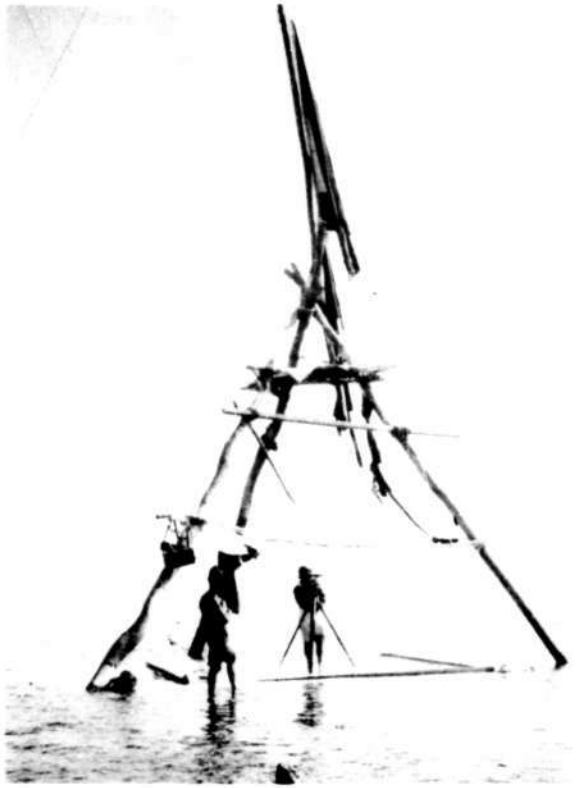
Establishing this relationship took trial

HMAS GERANIUM's motor boat. *(Photo — H. Adlam)*

and error. The hydrographers had already constructed towers between 15 and 35 metres high marking their precisely surveyed trigonometrical points and identification of these structures on aerial photographs would satisfy the requirement to align print and chart. At first, 'aerial marks' of white canvas or calico on timber platforms were attached to the towers so they could be easily identified on the prints, but the reefs were regularly covered by water and the platforms caused the towers to break up under wave action. These towers were made of timber felled on islands then transported to the reef area and lashed together with rope. Considerable expense and effort had been involved in their construction by GERANIUM (up to 305 metres 1000 feet of rope was used in the taller towers) and their material was expected to be available for other towers; their destruction and loss was most undesirable. The aerial marks were abandoned in favour of taking vertical and oblique photographs of the mark from low level to identify the general area of the tower then using a magnifying glass to find the tower's shadow.

Accurate transfer of reef outline from print to chart also required knowledge of the scale of the print, ie, the relationship between distance on the print and that on the ground. In theory, with knowledge of camera lens focal length, aircraft height, film size and film or print shrinkage, the scale could be calculated but, in practice, it could not be found accurately enough. Instruments available could not determine aircraft height precisely enough while unpredictable and variable shrinkage of photographic material under tropical conditions was to plague the Air Force hydrographic trials for years.

An alternative means of determining scale of a print was to compare a known distance on the ground with a measured distance on a print. This required at least two recognisable features on a print and initially special floating marks of timber with strips of painted canvas nailed to them were set out a known distance apart. This idea worked well if the marks were in the lee of a reef but anywhere else they broke up too quickly to be effective. Much time was wasted making, laying and re-laying these marks and they were abandoned in favour of measuring conspicuous coral heads to obtain the known distance on the ground needed to scale the prints. Occasionally GERANIUM herself was used as the known distance.



A tower erected by the hydrographers. *(Photo — H. Adlam)*

This experimentation and trial was of considerable value and the seaplane was very useful to the hydrographers. The commanding officer of the sloop was convinced seaplanes were an asset to a hydrographic ship but was sure the Fairey IIID was unsuitable. It was, in his opinion, severely limited by the restricted field of view from the cockpit and the frailty of the floats. Movement of his ship had been far too restricted by the need for the Fairey IIID to take off and alight in the lee of a reef and GERANIUM had to remain near suitable areas while the aircraft was airborne so it could be recovered. Hoisting arrangements worked well but he recommended an improved crane be fitted so the seaplane could be worked while the ship was underway.

In the report he submitted in January 1925 covering the period from early July to 30 November when the season finished, GERANIUM's commanding officer had several interesting comments about the Air Force support. The boat was superfluous as the sloop herself could come alongside the seaplane unaided and, worse, the support boat was slower than GERANIUM and took too long to lower. The boat did have one good use though; after GERANIUM brushed against a coral outcrop which, despite extreme care, had not been seen, the Air Force boat was used immediately ahead of the sloop checking for similar hazards.

Eight airmen for one aircraft was described as excessive as they had little to do. This complaint about aircraft servicing parties has been made as long as aircraft have embarked in ships, usually without solid foundation, but on this occasion the complaint may have been justified. Considering that a similar, but shorter, detachment to HMAS MELBOURNE in 1920 had operated with two airmen, two officers and one aircraft and a joint-Service committee in 1921 had decided upon a reasonable manning for a Fairey IIID in a Flower class vessel as two officers and three airmen (including a photographer) a detachment of eight in 1924 appears unjustified. GERANIUM's commanding officer was adamant that on future similar occasions airmen on board must be clearly subject to the Naval Discipline Act and be available for ship's work such as coaling. He does not elaborate on this statement but his reasons would be interesting, if predictable.

The contribution of the seaplane to hydrography was promising enough to lead to larger scale detachments of Air Force aircraft. From 1926 to 1929 Seagull III amphibians deployed to Bowen in Queensland and operated over the Great Barrier Reef still developing the use of aircraft in hydrography. In this survey work the Air Force's 101 (Naval Co-operation) Flight worked loosely with the RAN's latest hydrographic ship, HMAS MORESBY, but did not embark in her.

Fairey IIID seaplane in the Great Barrier Reef. *(Photo — H. Adlam)*

Results of this work can still be seen on charts in use today. Geranium Passage off Cairns is one obvious result (at Latitude 17°43"S) and many other names of reefs have Naval connections, eg, Adelaide Reef and Hall-Thompson Reef (after the First Naval Member 1924-1926).

THE EUROPEAN REPORT

Naval News from the Continent by ANTONY PRESTON*

WEST GERMANY

The first of the new Type 143A missile boats for the Federal German Navy was launched on 25th September at the Fr Lurssen shipyard at Bremen-Vegesack, where many of the E-Boats were built in World War II. Although previous missile boats have received only numbers, **S.71** has taken the name **Gepard**, and the previous MTB of that name has paid off for scrapping.

The **Gepard** and her nine sisters are built of wood planked on light alloy framing, like the original Type 143 (**S.61** class) but the armament has been modified. In place of the after 76mm OTO-Melara dual-purpose gun there is a 24-round launcher for Ram missiles, and the two 533mm (21 inch) torpedo-tubes have been omitted. The Ram system has been installed to meet the growing threat from aircraft and sea-skimming missiles. It uses the Rolling Airframe Missile RIM-116A with an EX-144 launcher, and although development has been in the hands of General Dynamics (Pomona Division) many of the launcher-components are being manufactured in Germany.

When all ten are in service their half-sisters **S.61-70** will be retrofitted to the same standard. In fact the after 76mm guns are already being removed and installed in the **Gepard** and her sisters. When modified they will be re-designated Type 143B.

The sixth and last of the Type 122 frigates, the **Karlsruhe** was launched and christened on 8th January at Howaldtswerke, Kiel. Laid down early last year, she was originally to be named **Saarland** but like the new FPBs she is taking the name of the ship which she replaces.

*Naval Editor, *Defence*

SPAIN AS A WARSHIP-EXPORTER

The nationalised shipyard Empresa Nacional Bazan has started delivery of three patrol gunboats to the Republic of the Congo. Known as the **Piranha** type (their Congolese names are not yet known), they were ordered in 1980 and are being delivered in January, March and May this year.

Although not stated, the **Piranha** design appears to be a slightly beamier and more powerful version of the Spanish Navy's **PVZ.31** class of coastal patrol craft. Dimensions are 32.7m (oa) x 6.15m x 1.53m and the full load displacement is 138 tonnes. They are driven by twin-shaft MTU 12V538 TB92 diesels (made under licence by Bazan) developing a total of 5110hp (continuous rating) or 6120hp (sprint rating), equivalent to a smooth-water speed of 29 knots (34 knots maximum).

Armament is suited to coastal patrol duties: a single 40mm L/70 Breda-Bofors gun, a 20mm Oerlikon and two 12.7mm machine guns. In addition to a Raytheon RN 1220/6XB navigation/surface search radar they carry a Panda optronic director.

The hull is of steel, with an alloy superstructure. Accommodation is provided for three officers, six POs and ten junior rates. Endurance is estimated to be 1000 miles at 17 knots, and the three craft are intended for coastal surveillance and fishery protection.

FRANCE

A seventh nuclear-powered missile submarine is to be ordered. She will be a sister to **l'Inflexible**, the 7500-ton boat building at DCAN Cherbourg, and will come into service in

***Peruvian MELITON CARVAJAL firing Otomat SSM at 30 knots.** (Photo — via Selenia)*

about 1987. She will be similar in layout to the existing SNLEs of the **Redoubtable** class, but will have 16 M4 missiles rather than M20s.

Two more coastal escorts or **avisos**, the **Commandant Ducuing** and **Enseigne de Vaisseau Jacoubet** were launched at DCAN Lorient on 26th September last, leaving only one of the projected total of 17 still building. In the same yard the first section of the lead-ship of the new Saudi Arabian frigates was laid down on 15th October. They are broadly similar to the **Georges Leygues** class destroyers but are diesel-driven. The remaining three are building by Constructions Navales et Industrielles de la Mediterranee at la Seyne, outside Toulon.

The second of the Tripartite minehunters, the **Cassiopee** was launched at Lorient on 26th September, and the lead-ship **Eridan** has now been formally commissioned. The robot mine-disposal system used in these minehunters, the PAP-104, has just been bought by Malaysia for the four **Lerici** class building in Italy.

ITALIAN MISSILES OPERATION IN SOUTH AMERICA

On 1st October last year the Peruvian frigate **Meliton Carvajal**, second of two Italian-built **Lupo** class, fired an operational Otomat surface-to-surface missile, which severely damaged the old **Fletcher** class destroyer **Guise**. The firing was carried out at 30 knots, with 10 knots' wind-speed and sea state 3. The missile flew a distance of 125km, maintaining a height of 3m during the final phase before impact. A normal warhead with impact fuse was fitted, and although the **Guise** was temporarily hidden in the trough of the swell, the secondary proximity fuse in the missile detonated it as it passed over the helo deck on her stern.

Shortly afterwards, during Exercise 'Unitas', the joint exercises held annually by the US Navy and various Latin

Soviet hovercraft, known to NATO as AIST. Note light guns on either side of ramp. (Photo — TASS)

American navies, the Venezuelan **Lupo** class, the **Mariscal Sucre** fired her Apside point-defence SAM system aginst a live target. A small supersonic drone was hit by the missile and destroyed. Apside is a multi-rolled missile developed from the airframe of the well-tried Sparrow missile and is intended to replace Sea Sparrow. It is fully compatible with existing Sparrow point-defence systems, requiring only a small 'kit' to alter the electronics from one missile to another, or even back again if needed. It is normally associated with the Albatros weapon control system, but is compatible with other SAM fire control systems.

BRITISH NEWS

On 16th December it was confirmed that the Royal Navy will buy its new heavyweight 21 inch torpedo in Britain. Negotiations with Marconi Space and Defence Systems having been concluded satisfactorily, a full development contract worth about £500 million has been approved. This means that a very expensive battle fought by Gould Inc to penetrate the UK market has been lost. It also improves the likelihood of an Anglo-German agreement to market torpedoes to those navies which have bought German submarines in the past ten years. The Federal German Navy already uses a British minehunting sonar, and a joint programme for torpedoes would make a lot of sense.

The seventh 'Hunt' class mine countermeasures vessel, HMS **Brocklesby** was launched by Vosper Thornycraft at Woolston, Southampton on 12th January. What is interesting is the way in which the building-time for these GRP hulls is shortening each time. Despite having to be virtually hand-made, experience with the first two hulls has been applied to the remainder, particularly by adopting 'open hull' construction, leaving the weather deck open as long as possible to facilitate the installation of equipment.

Eight Plessey AWS-4 radar antennas have been delivered to the Canadian Navy for fitting to the destroyer escorts which are being upgraded under the DELEX (Destroyer Escort Life Extension) programme. The DEs will receive the Canadian Marconi CMR 1820 radar processing equipment and the antennas, as part of a $C9 million contract.

Although the Naval Staff has put up a stiff rearguard action the Defence Minister persists in efforts to persuade the Royal Australian Navy to buy the new support carrier HMS **Invincible**. The question of just what aircraft would fly from her deck is answered by vague talk of using only Sea King helicopters or 'borrowing' Sea Harriers from the Fleet Air Arm. By the time

The new MCMV HMS COTTESMORE, first of the Hunt class built by Yarrow on the Clyde. (Photo — MoD)

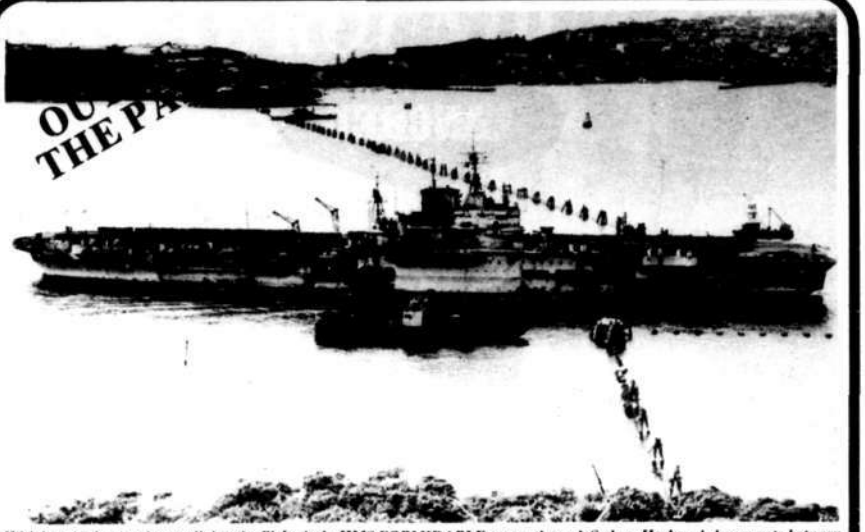
this feature appears in print the issue will be settled one way or the other, but one can only ask why a new ship recently worked up has to be flogged for what she can fetch. Admittedly there is a feeling that she will 'stay in the family', but it is a serious blow to the efficiency of the Fleet Air Arm, for the whole process of working up to full efficiency must now start again with HMS **Illustrious**.

New Zealand has dropped plans to re-engine the **Rothesay** type frigate **Taranaki** with Tyne gas turbines. Instead the **Leander** class **Dido** and **Bacchante** will be bought. What is not clear is whether either ship will be refitted or altered after the purchase. Rolls-Royce has produced studies for re-engining Type 12 hulls with three Spey gas turbines, a proposal which is being looked at by India for her 'stretched' **Leander**. **Dido** has already been converted to operate the Anglo-Australian Ikara ASW missile, so she may be the one chosen for any major alterations, whereas **Bacchante** is a broad-beam sister to the **Canterbury**.

The Royal Fleet Auxiliary **Tarbatness** has been sold to the US Military Sealift Command, with effect from 5th November last year and is now named USNS **Spica**. She joins her sister **Lyness**, which was renamed USNS **Sirius** at the beginning of last year.

There is much anxiety over the future of Gibraltar, for the UK Ministry of Defence has announced that the naval base will close in 1983. Gibraltarians, aware that they would lose certain tax-privileges, are steeling themselves for a handover to Spain. At a recent press conference in London the Spanish Prime Minister, Don Leopoldo Calvo Sotelo made quite clear his Government's determination to restore the 'territorial integrity' of Spain, but not at the expense of the rights of the citizens of Gibraltar.

One partial or interim solution is suggested by Spain's imminent admission to NATO, that NATO could appoint a Spanish flag-officer to run the base. That would ensure that the Spanish flag waved over the Rock once more, after an absence of more than 250 years, and would give time for an equitable solution to the dispute. It is easy to pooh-pooh the Spanish sensitivity over Gibraltar, but here in England people are beginning to ask themselves how they would feel if, for example, the French owned Dover under a treaty dating from the days of Queen Anne. With General Franco gone from the scene and a stable constitutional monarchy now installed in Madrid, the time would seem to be ripe for a negotiated settlement, especially as the issue inside Spain generates considerable heat.



With her ship's complement lining the flight deck, HMS FORMIDABLE passes through Sydney Harbour's boom gate between Watsons Bay and Georges Head on 28th August, 1945. In front of the aircraft carrier is the auxiliary boom defence vessel GUNBAR. A coastal steamer built in Scotland in 1911 for the North Coast Steam Navigation Company, GUNBAR was requisitioned on 30th September, 1940, for conversion to an auxiliary minesweeper. She operated in the BDV role from 1943 to 1945 and paid off in December, 1945. In the background is another auxiliary BDV, the former steam ferry KOOMPARTOO.
(Photo — Australian War Memorial Neg No 42957)

One of the famous X craft midget submarines, XE4, underway on Sydney Harbour during September, 1945. Originally developed from a small submarine for river employment, XE craft were further designed for use against Japan and were more habitable. The XE craft mounted clockwork time fuses, each containing two tons of explosive which were placed under the bottom of the ship being attacked. A diver could leave and return to the submerged craft. Like most X craft, XE4 was stricken in 1945. One example, X24 has been preserved as a museum exhibit. A total of 31 X and XE craft were originally constructed.
(Photo — Australian War Memorial Neg No 114892)

NAVAL ROUNDUP

— Compiled by "GAYUNDAH"

MODERNISATION OF GUIDED MISSILE DESTROYERS

The RAN's three Guided Missile Destroyers (HMA Ships PERTH, BRISBANE and HOBART) are to undergo a modernisation programme costing $205 million at August, 1981, prices.

The Minister for Defence, Mr D. J. Killen, said in December 1981, that the modernisation would entail improvements to the ships' gun and air defence missile system, radars and computer-based control systems. In addition, the ships' machinery would be overhauled and accommodation standards improved. The modernisation would maintain their capabilities until about the end of the century.

Equipment for the modernisation would be ordered immediately, and the first ship was expected to begin its refit at Garden Island dockyard in 1985. Equipment to be ordered from overseas would cost about $180 million.

Mr Killen also announced that it had been decided to proceed with the design and engineering development of new tracking and guidance equipment for the Australian designed Ikara anti-submarine missile system installed in the guided missile destroyers. This would cost $15 million and extend over the next two and a half years.

Further decisions would be made before 1985 on the need to modernise or replace other equipment in the ships. This would include parts of the electronic warfare systems and the Ikara systems.

LR5 plastic submarine. *(Photo — MoD)*

RESCUE UNDER THE SEA

A British Oceanics glass reinforced plastic submersible LR5, is hoisted aboard its mother ship during a successful exercise — in Force 7 gales — to rehearse submarine rescue procedures in operational conditions. In the background is HMS ONYX, an Oberon class submarine that played the part of a distressed vessel to which the plastic submersible was linked allowing the transfer of crews from one to the other.

The submersible's lock-out compartment is easily joined to the submarine's escape hatch by means of a mating skirt to allow the dry transfer of personnel at atmospheric pressure.

The 6 metre (20') long LR5 is a three-man operated diver lock-out submersible powered by oil-filled electric motors and equipped for deep sea operations at depths to 457 metres (1500'). Its main use is for servicing offshore oil fields but the vessel's potential as a submarine rescue system is attracting interest from the navies of several countries.

HMAS HOBART arriving in the Port of Fremantle in December, 1981, following five months tour of duty in the Indian Ocean. *(Photo — RAN)*

100TH EMERLEC 30 NAVAL ARMAMENT SYSTEM

Emerson Electric Co, St Louis, MO, USA, recently delivered the 100th production model of its EMERLEC 30 Naval Armament System. The Emerlec 30 System, which mounts two Oerlikon Buhrle 30mm cannons, serves as primary armament for fast patrol boats and secondary armament for larger vessels.

The system is highly effective against airborne and surface targets. It was first developed in 1974 and production began in 1976.

The Emerlec 30 has received worldwide acceptance. It is currently in use by many countries including Ecuador, Greece, Malaysia, Nigeria, and the Philippines. Interest in the system also exists in several other countries.

Advanced features of the system include a high rate-of-fire (1200 shots per minute), large ammunition storage capacity (1970 rounds), light weight and an environmentally controlled gunner's station. The mount can be electrically or mechanically driven.

NIGERIA ORDERS WESTLAND LYNX

Westland Navy Lynx helicopters have been ordered by the Federal Republic of Nigeria for operation with the newly formed Fleet Air Arm of the Nigerian Navy.

The deal worth £17 million includes a major spares, support and training package in addition to the helicopters. Nigerian pilots and engineers will receive conversion training in the United Kingdom by Westland, which will supply a wide range of training aids for use in Nigeria. Delivery is due to start at the end of 1983. Discussions are continuing for further work in Nigeria.

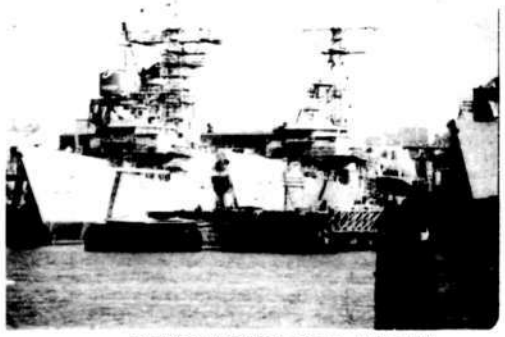
The Lynx in Nigeria will mainly operate from the MEKO class frigate, ARADU, which completes its sea trials this year. The helicopters are intended for coastal patrol and search and rescue duties, and will be fitted with anti-submarine warfare role equipment.

The Nigerian Navy is the ninth operator to have chosen the Westland Navy Lynx, and the order takes the total sales of all Lynx variants to 310.

FIRE CAUSES MAJOR DAMAGE TO RAN FRIGATE

A major fire in the superstructure of the Royal Australian Navy's third guided missile frigate, now under construction at the Todd Pacific Shipyards, Seattle, USA, occurred at 4 pm, Sunday, 24th January (mid-morning Australian Time), causing extensive damage. Early information from Seattle indicated that the fire was caused by an electrical fault in the Combat and Communication area. An initial assessment, which had not been confirmed, placed the cost of the damage at between $3 million and $4 million.

The guided missile frigate, which when commissioned as HMAS SYDNEY, was launched on 26th September, 1980, by Lady Willis, wife of the Chief of Naval Staff, Vice Admiral Sir James Willis. The frigate was due to commission in January, 1983, and arrive in Australia, about November, 1983.



HMAS SYDNEY (left). (Photo — J. Straczek)

Emerlec 30mm gun mount.

Depending on the extent of the fire damage it is expected that these dates will now be delayed. A full investigation into the fire will be conducted by the United States Navy.

The Chief of Naval Material, Rear Admiral W. J. Rourke, said on 27th January, that enquiries were underway into the causes of the fire. "It will be some time before the costs of the fire can be assessed, as it is necessary to survey cabling and equipment to determine the extent of damage and to decide if repair or replacement of equipment and material will be required," said Rear Admiral Rourke.

"Media reports that the Australian taxpayer will pay the total cost of the damage could be misleading. Liability for costs is a matter yet to be determined. It is the policy of the Government not to buy commercial insurance, and that means that the Government carries the risk. However, this does not necessarily mean that others might not have some liability for costs. It will depend upon the causes of the fire, and these have not yet been established," Rear Admiral Rourke stated.

Initial reports on the cause of the fire suggest it may have been deliberately started. This possibility is being investigated by the Seattle Fire Department and the United States Navy's fire marshals. Further investigations are also being carried out by the FBI and the US Navy. The question of liability for the cost of repairs to the ship will not be resolved until these investigations have been completed.

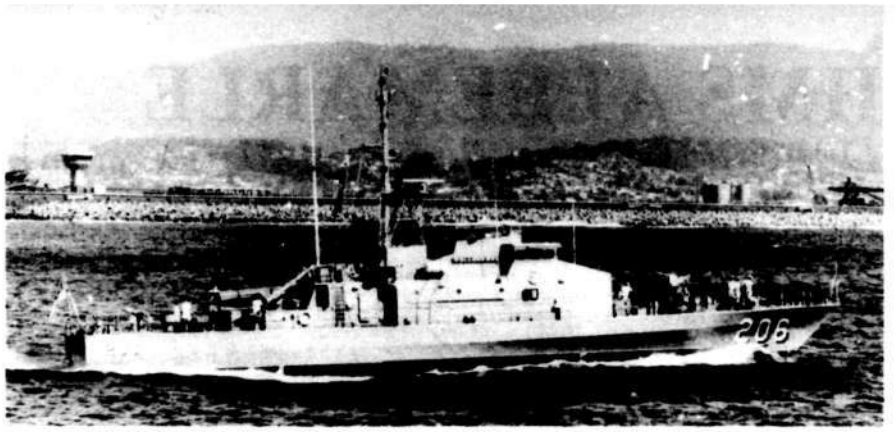
No estimate of the cost of repairs or any possible delay in the delivery of the ship will be made until surveys of some classified and complex equipment have been completed.

ADMINISTRATOR'S WIFE TO LAUNCH FOURTH FRIGATE

The RAN's fourth guided missile frigate, to be named HMAS DARWIN, is to be launched at the Todd Seattle Shipyards, USA, on 26th March, 1982.

Announcing the launching date, the Minister of Defence, Mr D. J. Killen, said that in view of the significance of the launching to the people of Darwin and the Northern Territory, the ceremony would be carried out by Mrs Joan Johnston, wife of the Administrator of the Northern Territory, Commodore E. E. Johnston, RAN (retired).

He said it was appropriate that Mrs Johnston should perform the launching of the new ship in view of Commodore Johnston's present position and his distinguished service to Darwin during Cyclone Tracy.



HMAS WOLLONGONG sailing Port Kembla, 2nd February, 1982, following the ship's first visit. (Photo — Ron Wright)

US COASTGUARD SEEKS PATROL AIRSHIP

Exactly fifty years after the first flight of the USS AKRON, one of two giant 785 airships built for the US Navy, the US Coastguard is looking at a new airship programme.

Some 30 companies, including Goodyear Aerospace, met on the 50th anniversary of the inaugural flight at the Naval Air Development Center, in Warminster, Pennsylvania, at the invitation of the Coast Guard.

The meeting was for companies interested in bidding on a US Coast Guard proposal to construct a prototype of a 330-350ft coastal patrol airship. The Coast Guard set a 17th November deadline for receiving proposals on the prototype.

One company bidding on the proposal will be Goodyear Aerospace, which has engineered and produced more than 300 airships since the First World War and now operates four blimps for promotional and goodwill purposes — three in the United States and one, the EUROPA, in Europe.

Although larger, the Goodyear patrol airship would be similar in many ways to the familiar blimps, which are 200ft long. The patrol airship, however, would have one engine on each side and two at the stern and would be capable of long overwater missions.

HMS ALBEMARLE

Duncan Class Battleship, 1903

by GEOFF MILLER

Peace is a fragile thing, uneasily kept, easily broken. England in the last quarter of the 19th century was apparently peaceful enough, but it was a time of many scares, of rumours of war, when the most likely enemy was seen as France or Russia. England came close to war in 1884 over Russian incursions into Afghanistan.

Fears were also aroused four years later when the French began to expand their fleet in the Mediterranean. All this was happening at a particularly low point in the history of the Royal Navy, culminating in the Fleet Manoeuvres of 1888 after which a report was tabled in Parliament to the effect that the Navy was inadequate to fight a major war against two Great Powers.

The Government was finally forced into action and the Naval Defence Act of 1889 was passed, allowing massive ship-building programmes to begin. As a first task it fell to the Director of Naval Construction, William White, to design a new class of battleship: the result being the Royal Sovereign class. When the nine ships of the following Majestic class were built the Royal Navy possessed an homogenous fleet of the most powerful battle-ships in the world.

After the uncertainty and unusual designs of the preceding years there now followed a series of ships based on the "Majestic" pattern. So the Canopus (1896-97), Formidable (1898), London (1898, 1900), Duncan (1899) and King Edward VII (1902-03) classes all mounted 12" guns in twin turrets, fore and aft, with a secondary battery of 6" guns (9.2" and 6" in the King Edwards). They displaced 14,000-17,000 tons on a hull

HMAS ALBEMARLE (Drawing — Geoffrey Miller.)

HMS ALBEMARLE

Built
Royal Naval Dockyard, Chatham

Laid Down
January, 1900

Launched
March, 1901

Completed
November, 1903

Dimensions
Length overall 432 ft
Length 405 ft
Breadth 75 ft 6 in
Draught 25 ft 3 in mean
26 ft 4 in max

Displacement
13,440 tons normal, 14,930 tons deep load

Machinery
Two 4-cylinder vertical inverted triple expansion engines by Thames Ironworks. Twin screw. 24 Belleville-type boilers. IHP natural draught: 18,000 = 19 kts. 8 hours trial = 18.6 kts

Bunkers
Coal: 900 tons normal, 2,240 tons max

Endurance
7,200 miles at 10 kts

Armament
4 x 12", 50 ton 49 cal
12 x 6" quick-firers, 45 cal
10 x 12-pdr quick-firers
6 x 3-pdrs
2 machine guns
4 x 18" torpedo tubes, submerged

Armour
Belt 7"-3" 286 ft long x 14 ft wide
Barbettes 11"-7"
Barbette shields 12"-3"
Casemates 6"-2"
Protected deck 2½" slopes, 1" on flat
Maindeck where armour 2"
Conning tower 12"

Complement
750 (778 as flagship)

390-425 ft in length and could steam at 18 knots. Protection, however, differed from class to class. The ships of this era — the "White" era — bore the Royal Navy supreme into the 20th century, until the coming of the Dreadnought in 1906.

There was little however for this great fleet to do but exercise its mighty threat as a fleet-in-being. So, when in 1898 the French, through the intrepid Captain Marchand, staked a claim on the Upper Nile at Fashoda the seeming confront-ation between the two countries was dissipated by a Royal Navy show of strength in the Mediterranean. The French navy, suffering from political intrigue, was weak and ill-disposed to counter this force. However, the Russian navy was a different matter — or so the Admiralty thought. Mainly basing their fears on faulty intelligence the Admiralty consistently exaggerated the threat from Russian ships. Hence the large (and largely unsuccessful) protected cruisers POWERFUL and TERRIBLE (1898) were constructed in response to the Russian commerce raider RURIK. Then in 1898, the Russian navy began laying down the Peresviet class of allegedly fast battleships. At the time the well armed and protected, 18 kt (max) Formidables were building in England. Plans for a new fast battleship, with a continuous sea speed of 18 kts, to counter the Russians were not to hand in time for inclusion in the 1898 estimates, so the Formidable design was repeated with some modifications, and 5 ships of the London class were built.

Finally plans were ready and 6 ships, RUSSELL, DUNCAN, CORNWALLIS, EXMOUTH, MONTAGU and ALBEMARLE were laid down between March, 1899 and January, 1900. The new class was immediately criticised. Agitation from the public, politicians and some sections of the navy for smaller ships meant that the Duncans could not be the faster edition of the Formidables the Admiralty would have desired. Displacement had to be reduced. The saving could only be made through less protection and close attention to weights during construction. So the main belt was reduced to 7", main deck 2", and waterline deck only 1". Protection was sacrificed for speed and neither of the opposing camps was appeased. To the "economists" the ships were not small enough; to the "Navy lobby' they were a disastrous compromise.

Unfortunately it then transpired that the Russian ships were nothing more than second class battleships mounting 10" guns and capable of only 16 kts. The Duncans then, although superior in every way to their intended foe were really a retrograde design. Viewed in this light, as the overreaction they undoubtedly were, the Duncans were the least satisfactory ships of the White era.

All the ships of the class were delayed due to labour unrest and strikes in the shipbuilding industry. ALBEMARLE, costing £1,100,000, was commissioned in November, 1903, for the Mediterranean fleet where she served as 3rd flagship until January, 1905, when she transferred to the Channel fleet. In February, 1907, she became Rear-Admiral's flagship of the Atlantic fleet; the same month (on the 11th) she collided with the King Edward class battleship COMMONWEALTH, sustaining slight damage only. From January to May, 1909, she served as Rear-Admiral's flagship, GIBRALTAR. In February, 1910, returning to the 3rd division, Home fleet, at the Nore, she was reduced to a nucleus crew. In June, 1910, she saled to Portsmouth as Rear-Admiral's flagship where she remained until October of that year. It is at this time that she is depicted in the drawing above.

Although fire controls and extensive wireless aerials have been fitted the general arrangement is still related to the Royal Sovereign class, ten years earlier.

The ALBEMARLE was refitted through-out 1912 before joining the 4th Battle Squadron (BS) Home fleet. In May, 1913, she was back at Portsmouth as a gunnery tender but at the same time retaining a place in the 6th BS.

On the outbreak of war ALBEMARLE joined the Grand Fleet at Scapa Flow, where, with the other pre-dreadnoughts of the 6th BS, she was employed as a mine-bumper. On the northern patrol between Scotland and Norway one of the tasks of these older ships was to lead the more valuable dreadnought class battleships through waters unswept of mines. This was an especially dangerous occupation considering the habit of the old ships to capsize quickly when mined.

ALBEMARLE was transferred to the Channel fleet, 6th BS, in February, 1915, and then to the 3rd BS, both these squadrons containing her sister ships. The extensive use of pre-dreadnoughts in the Channel, guarding the troop convoys to France, freed the newer ships at Scapa to await the expected confrontation with the German High Seas Fleet. Here ALBEMARLE remained, performing a useful if mundane service until November 11, 1915, when she met heavy weather steaming at deep load through the Pentland Firth. She shipped a sea which, passing just below the lower top of the fore mast, smashed her bridge, washing part away. After a short refit she rejoined the fleet at Scapa, in December, 1915.

During 1917, she was spared to assist the Russian war effort: an irony consider-ing the purpose for which she was built. Steaming to Archangel she was employed as a guardship and occasional ice-breaker. It was also in this year that the main deck battery of 6" guns was removed and four 6" guns placed on the upper deck behind shields. The original siting of this battery on the main deck, making the guns virtually unusable in heavy weather, was one of the main defects of White's designs, but one that took a long time to rectify.

After the war, ALBEMARLE remained in reserve at Devonport until sold for breaking up in 1920. She stranded, however, on the way to the breakers and did not arrive until 1922. Of the 4 sister ships that entered the War (MONTAGU having been wrecked on Lundy Island in a fog on May 30, 1906) only 2, DUNCAN and EXMOUTH, survived, to be sold in 1920. The remaining pair were both sunk in the Mediterranean. CORNWALLIS was struck by 3 torpedoes from U32 and sank on January 9, 1917 while RUSSELL was mined off Malta on April 27, 1916.

BOOK REVIEWS

"Who sank the SYDNEY?"

by MICHAEL MONTGOMERY
Published by
CASSELL, AUSTRALIA, 1981
REVIEWED BY
L. H. PYKE
Price: $16.95

The question of how the pride of the Royal Australian Navy, HMAS SYDNEY was sunk with all hands has been open since that fateful evening of 19 November, 1941.

Undoubtedly, the KORMORAN, a German raider, exercised a successful ruse de guerre to lure the Australian cruiser very close and for the KORMORAN to fire the first salvo. The subsequent exchanges of fire, after the first shots had crippled the SYDNEY, finally resulted in the sinking of both ships.

Interrogation of the more than 300 German survivors threw very little light on the fate of HMAS SYDNEY, and all of its complement, after she had disappeared over the horizon, of Shark Bay, burning fiercely. Local station hands and residents of the sleepy northern town of Carnarvon can hardly be expected to carry out expert questioning of foreign witnesses and to enforce desirable isolation and segration of respondents, even under the rigours of war. Hence much of the evidence of how HMAS SYDNEY was sunk has unfortunately been collected in a haphazard and somewhat incompetent manner.

Montgomery, whose father was the navigator of the ill fated SYDNEY, has undertaken some diligent research to produce a book on that encounter. He traces the cruises of both the SYDNEY and the KORMORAN prior to the engagement, outlines the war strategies of those times and sketches the characters of key Australian and German officers on board both warships. From these observations and various sketches, photographs and illustrations, the reader can obtain a vivid picture of the incident.

The author raises some questions of procedures and possible breaches of the rules of war, especially in relation to the timing of a supposed false distress call and the question of when the German flag was raised by the raider. He alludes to the possibility of a cover-up by the Navy Office when some documents become hard to trace. Slowly, he thus cleverly builds up a sinister picture of claims, counter claims, questions and part answers which his research indicates. It is against this background that he raises a question which has not been asked before — "Who sank the SYDNEY?" Montgomery then appears to allow emotion to overshadow diligent research and loses his logic with his introduction of a possible Japanese submarine.

This hitherto unrecognised factor is introduced in a final stage of his book, together with rumours of a capture of SYDNEY and her improbable appearance years later in a Japanese shipbreaker's yard. Such mischievous fantasia can only be excused if they are based on sound documentary evidence which, unfortunately, is lacking in this part of Montgomery's book.

It is a very readable book, even though some minor points need correction. It is possible that more diligent attention to basic source documents, such as original ships logs, more correct translations from the German and more professional analyses of cyphers and suggested shorthand could produce more credible evidence. The book will be recognised by history as another comment on the mysterious disappearance of a proud ship of the Royal Australian Navy, rather than raising another, tenuous question of who sank that ship. It will be remembered by naval tacticians as additional evidence on how SYDNEY was sunk by the KORMORAN.

It could be noted here that another naval historian is preparing a treatise on the history of the KORMORAN. It could be expected that such a tome would provide yet more facts on the disappearance of HMAS SYDNEY, if the diligence of research and the formulating of conclusions is equal to and better than the work done by Montgomery.

"Carrier Air Power"

by NORMAN FRIEDMAN

Published by
CONWAY MARITIME PRESS
REVIEWED BY ANTONY PRESTON

As we have come to expect, the author brings a fresh and analytical approach to the subject of naval aviation. Avoiding gung-ho descriptions of carrier battles, he conveys a clear impression of how and why carriers operate, but at the same time steering clear of an arid lesson in ship-design.

Carriers, more than any other type of ship, are built around their main weapon-system, in this their air group. Once that concept is firmly grasped a carrier-design can be evaluated. It is possible to have good carriers but rotten aircraft, like the British in the Second World War, or magnificent aircraft and not-so-good carriers, like the Japanese, but the final judgement must be on what was done to get the best out of both elements. The author shows how, for example the American MIDWAY class carriers with an air group of 145 aircraft could fly fewer sorties in a given period than the ESSEX class, which had only 80 aircraft. The need to revise the deck-layout to make better use of the air group was one of the major considerations in designing the 64,000-ton FORRESTAL class in the 1950s.

There is a wealth of fascinating detail not normally covered in books on naval flying: the use of radar in fighter-defence, methods of bombing and modern carriers' resistance to battle-damage to name but a few. More than enough to keep both the serious student of naval aviation and the buff happy, it is a serious attempt to explain in comparatively simple language just what makes the modern Carrier Battle Group the most powerful offensive and defensive weapon in the armoury of Sea Power. It is recommended reading for those who glibly talk of the obsolescence of carriers, for not only does Norman Friedman present this wealth of information lucidly, but he does it without polemics or propaganda. To add to its appeal it has 187 well-captioned photographs and 32 line drawings, many of them showing inboard arrangements of modern carriers.

As with the first two books of his trilogy, the author makes no attempt to provide a continuous narrative. Instead the various components, wartime experience, aircraft design, flight deck procedure, strike warfare and air defence, are dealt with in separate chapters. There are also useful appendices of carrier and aircraft data.

"The Pacific War"

by LARRY SOWINSKI

Published by: CONWAY MARITIME PRESS

Reviewed by: "GAYUNDAH"

During the Second World War, US Navy combat photographers took millions of photographs in an effort to record all facets of naval warfare.

From the attack on Pearl Harbour to VJ Day, the author of "The Pacific War" has selected an anthology of nearly 500 of the best of these photographs, including some rare colour coverage. Accompanying the impressive collection of prints are both long and short, detailed and brief, but always informative captions. Each action or event is presented chronologically, with a brief introduction.

Despite being mainly concerned with the US Navy, the RAN, RN and RNZN all rate a mention. Like always there are one or two photographs that stand out. In this book I was particularly impressed by the striking views of the Japanese carrier AMAGI lying on her side and naturally the superb photo of HMAS WARRAMUNGA at speed in July, 1943.

"The Pacific War" shows the conflict in all its moods, from the brutal Kamikaze attacks to the periods of apparent peace when the photographer could roam more freely. All types of US naval ships are illustrated, detailed views and onboard scenes complementing the superb broadsides and aerials. Naval air power and personnel are fully illustrated, both before and after the battles.

Although colour photography was still in its early stages, the clarity of this section is remarkable. The first photograph depicts the refloated WEST VIRGINIA about to steam from Hawaii to the west coast for reconstruction. Others show a wrecked Japanese destroyer, replenishment at sea and numerous onboard views.

To sum up, I found "The Pacific War" a very well-presented work. For the student of naval history, it is required reading. **Highly recommended.**

"Escort Carriers & Aviation Support Ships of the US NAVY"

by STEFAN TERZIBASCHITSCH

Published by: CONWAY MARITIME PRESS

Reviewed by: ROSS GILLETT

"Escort Carriers & Aviation Support Ships of the US Navy" is the latest book from Stefan Terzibaschitsch describing America's maritime air power. The new work is a companion volume to "Aircraft Carriers of the US Navy" which was first published during 1980.

Whereas the earlier book described all large fleet and light aircraft carriers, the new work concentrates on the lesser-known, but equally important, vessels, which were to become known to all as the "Jeep" or "Woolworth" carriers. The 124 odd escort carriers described within the book were constructed between 1941 and 1946, including 38 for service with the RN.

The requirement to utilise the larger carriers on strike missions meant that the escort carriers became invaluable in both the Atlantic and Pacific oceans for convoy escort, anti-submarine warfare and supplying the fast carriers. Their smaller size and reduced aircraft complement meant that they were expendable. As the war progressed, building times for the ships were forever reducing. The 50 CVEs of the Casablanca class were all built within one year; the longest 8 months and the shortest 3½ months. A typical escort carrier of the Casablanca class displaced only 10,900 tons full load, carried 28 aircraft, plus a crew of 860 and was defensively armed with a single 5 in/38 calibre gun and numerous A/A mounts.

After the end of hostilities, the requirement for the great numbers of "Jeep" carriers lessened and most were laid up. In 1955 however 30 were reclassified as helicopter carriers and 23 as CVUs. One ship, THETIS BAY, was converted to the first LPH in 1959. After outliving their usefulness in the light or helicopter carrier roles, most ships were again reduced to reserve.

But "good ships never die", and in 1959, 36 vessels were reclassified as aviation transports (AKVs) for further service with the Military Sealift Transport Service (MSTS). In this new guise, the "Jeep Carriers" transported urgently needed aircraft and equipment from the United States to various parts of the world, including Vietnam, during that nation's long conflict.

Finally in 1970, the last escort carrier was paid off from MSTS. "Escort Carriers & Aviation Support Ships of the US Navy" is the most comprehensive book yet produced on the subject. All completed ships are illustrated, showing the many different phases of each carrier's career. In many instances the photos are accompanied by scale line drawings displaying deck and profile views. The smaller section of the book, titled Aviation Support Ships, details and illustrates in the same manner such ship types as seaplane carriers, aircraft ferries and aviation base ships.

The only complaint I can make about the book is its hard cover, which is anything but hard. However, the most important part of any publication is the contents and it is here that the author has produced a very readable, informative and attractive coverage of the US Navy's escort carriers and aviation support ships. **Recommended.**

Russia's Naval Building Programme Grows Larger

RUSSIA continues to add to the strength of her Navy by an extensive building programme of almost every category of ship. Numbers of larger, more capable (and more diverse in role) aircraft are added every year to her Naval Air Force.

by A. W. GRAZEBROOK

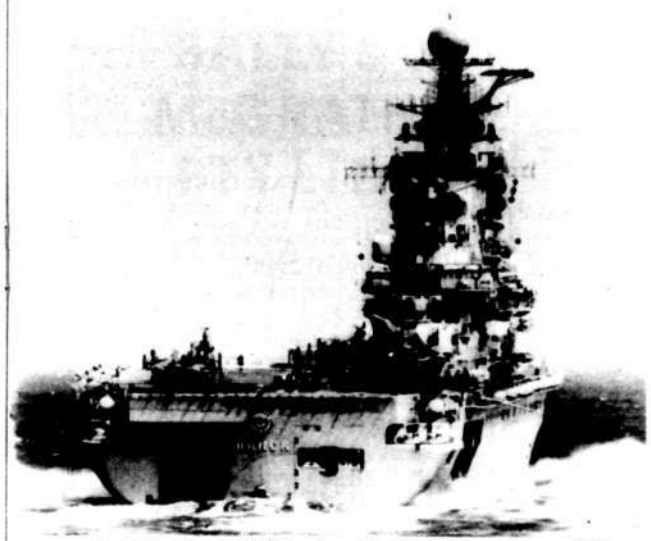
Not only are large numbers of ships being added to each category, but Russia is building ships of categories which her Navy has not previously had in service.

The new categories being added demonstrate incontrovertibly that modern Imperial Russia is building up those categories of warship, afloat support vessel, and naval aircraft required for aggressive military expansion.

Four new major classes of surface ship (originally code-named Bal-Com 1, Bal-Com 2, Bal-Com 3 and Black-Com 1) are larger than earlier classes in these categories. The extra space has been used for additional bunkers, personnel, provisions, ammunition and stores needed for prolonged operations at sea, well away from bases and forward operating facilities.

KIROV

First amongst the new class of major ocean-going surface vessel is the 22,000 ton KIROV Class nuclear powered battle cruiser. Originally known by the NATO code Bal-Com 1, the first ship of the class went to sea in 1981. Two more ships are under construction. KIROV's surface to surface missiles have a range of over 250nm. She also carries both point defence and area anti-aircraft and anti-missile missile systems and nuclear tipped anti-submarine torpedoes. Four helicopters provide additional ASW strength and, presumably, over the horizon guidance for the long range surface to surface guided weapons.



Soviet aircraft carrier MINSK underway in the Pacific Ocean. (Photo — USN)

KIEV

At 36,000 tons, the KIEV Class sea control aircraft carriers are now well known in our region through the presence of MINSK in the Soviet Far Eastern and Indian Ocean Fleets. These ships are equipped with 32 aircraft, about half of which are VSTOL strike and reconnaissance aircraft, and half helicopters. Apart from their aircraft, the Russian aircraft carriers are armed with long range (300nm) SSM, point defence missile systems and a longer range anti-aircraft missile. Three ships are complete and a fourth is still on the stocks.

For some time there have been reports that Russia plans a force of CTOL nuclear powered aircraft carriers. Two candidates have been identified for such carriers' strike and fighter aircraft complements. There is now news of the first ship having been laid down. One leading naval observer contends that the first ship will be laid down when the fourth KIEV Class sea control aircraft carrier has been launched.

SOVREMENNY

Three new classes of cruiser sized ships are under construction. The first of these is the SOVREMENNY Class (originally named Bal-Com 2), the first ship of which commissioned in 1980. This class is steam driven and appears to have a multi-function role. There are eight surface to surface missile launchers, an area defence anti-aircraft missile system, four 130mm guns, anti-submarine torpedo tubes and rockets, and a helicopter.

UDALOY

The second class of cruiser sized ship under construction is the UDALOY Class, the name ship of which first carried out sea trials in 1981. Originally known to NATO as Bal-Com 3, early photographs of this ship show her to have primarily an anti-submarine role. Fitted with a bow sonar and large variable depth sonar, anti-submarine weapons include the SSN-14 nuclear tipped torpedo, rockets and eight anti-submarie torpedo tubes. There are four close-in defence Gatling guns, but no missile anti-anticraft armament has been identified. There are two helicopters in separate hangars. The UDALOY Class is gas turbine driven.

BLACK-COM 1

The third class of cruiser sized ship, still known by the NATO code name of Black-

The Krivak class destroyer STOROZHEVOY. (Photo — RAN)

Com 1, is the largest class at present under construction. At 11,000 to 13,000 tons the Black-Com 1 type is apparently a successor to the KARA. Details of armament are as yet unpublished in the West and it is thus as yet impossible to confirm that Black-Com 1 is a successor to the KARA Class. One report has it that the new Class will have the long range SAM missiles fitted to the KIROV Class. It is also reported that Black-Com 1 will be armed with 152mm (or 6 inch) guns — much heavier than the guns in either the KARAs or the KIROVs. The ships are gas turbine driven.

Thus, of the three classes of cruiser sized ships under construction, one has a general purpose armament fit, the second is an ASW specialist ship, and the third is for an as yet undetermined role. It would not be surprising if a strong anti-anticraft emphasis were apparent in the armament of the so-called KARA successor.

SUBMARINES

Turning to submarines, the Russian Navy is now introducing for the first time two new classes of nuclear powered boats, both bigger and more powerfully armed than any of their predecessors.

These are the monster 25,000 ton TYPHOON Class SSBNs and the 15,000 ton OSCAR Class SSGNs. The first units of both classes were launched in 1900.

The TYPHOONs, which will displace about 30,000 tons when submerged, will be armed with twenty SSN-20 nuclear MIRV missiles, and a small defensive outfit of torpedoes.

The OSCARS will have a sustained underwater speed of 30 knots, will carry surface to surface missiles, and will be equipped with torpedo tubes.

Apart from these two new classes of nuclear powered submarines, the Russian Navy is continuing to build five classes of submarines:

- DELTA III SSBNs, of 11,000 tons, at the rate of about two per annum.
- CHARLIE II SSGNs, of 4400 tons, at the rate of about one every other year.
- ALFA SSNs, of 3500 tons, and an exceptionally high sustained underwater speed for submarines of any type. Reports mention speeds in excess of 32 knots.
- VICTOR III SSNs of 4900 tons.
- TANGO Class patrol submarines of 3000 tons, at the rate of two per annum.

The last named is of particular interest to Australia, as it represents a continued commitment to diesel electrically driven submarines and, in due course, an opportunity for Russia's client states to acquire a further generation of submarines.

SMALL ESCORTS

Reverting to surface craft, and Russia's ASW escort force in particular, there are three programmes to reinforce this capability:

- Two KRIVAK Class ASW FFGs per annum. These ships, of which the second group is now joining the Fleet, displace 3000 tons, are gas turbine, and have a range of anti-submarine weapons. They have no helicopter and their anti-aircraft armament is limited to point defence missiles and guns.
- The KONI type escort — a small (1700 ton) ship with point defence missiles, a fairly heavy gun armament, and short range anti-submarine armament. Many of these ships, if not all, appear to be for supply to Russia's client states.
- GRISHA Class CODAG driven corvettes, in two versions. The ASW version is under construction for the Navy, whilst the patrol version is operated by the KGB.

The rate of construction of these three classes is not high, reflecting perhaps a Russian policy decision to concentrate on larger surface warships with stronger ocean strike capability.

FAST ATTACK CRAFT

It is of interest to find the Russians, originators of the missile armed fast attack craft concept, building larger and larger craft of this type. Their first units (the KOMARs) displaced 75 tons full load. Today, they are running two building programmes — the MATKA Class hydrofoil type (at 215 tons full load) and the SARANCHA Class PHM at 280 tons full load.

FAST CORVETTES

The Russians continue to build fast SSGW armed strike corvettes of the 900 ton NANUCHKA diesel-driven type. These units are armed with point defence anti-aircraft missile systems as well as six SSGW coffin launchers. They are without ASW armament.

More recently, units of the TARANTUL Class have begun to join the fleet. These are smaller than the NANUCHKAs, carry an earlier generation of missiles (SSN-2C instead of SSN-9) and lack the point defence systems of the NANUCHKAs. The role of the TARANTULs is somewhat puzzling.

MCM

In mine counter measures, the Russians continue to build classes of ocean minesweepers, coastal minehunters, and inshore minesweepers. Three experimental GRP hulled craft have been built.

AMPHIBIOUS WARFARE

Turning to amphibious warfare, the construction of LSTs and smaller craft with displacement hulls appears to have been abandoned in favour of a programme of heavy ships (IVAN ROGOV Class of some 12,000 tons) and air cushion vehicles — a field in which the Russians have developed considerable technical and operational expertise, apparently having recognised its potential early but, unlike the US Navy, having been granted the resources to exploit that potential.

SUPPORT

In afloat support, the first of a new class of large submarine depot ship is being built, whilst programmes of other types continue. The previously small fleet of underway replenishment ships is being augmented rapidly by the conversion of merchant tonnage for this role.

NAVAL AIR

The strength of the Russian Naval Air Force continues to grow both in shore and shipborne aircraft. BACKFIRE long range variable geometry strike aircraft are now in inventory in considerable numbers, whilst FORGER VSTOL aircraft, HAZE ASW helicopters and HOUND helicopters (which fill several roles afloat) are in series production.

Clearly, the expansion of Russia's naval strength which first became apparent some ten or more years ago, has lost none of its impetus. On the contrary, the West is faced with a programme which no reasonable person could objectively conclude is anything but a major expansion of Russia's capability to strike hard and quickly at objectives great distances from the Russian homeland.

A Koni class frigate in the North Sea. (Photo — J. Goldrick)

letters to the editor

Mr Chris R. Tappenden
26 Hooper Road,
Smithfield Plains, SA 5114

Dear Mr Gillett,

I am hoping that some of your readers may be able to assist me with the following problems and would, therefore, be greatful if you could print my request in an edition of "The Navy".

1. In 1925, the German barque "HAMBURG" arrived from Sweden with a cargo of timber for Hobart and Melbourne and later called at Sydney to repair damage incurred while enroute to Europe. I am a member of a group collecting information on the German Submarine Arm of World War II, and as this vessel trained a number of boys who later became U-Boat commanders (including the famous Gunther Prien) this vessel becomes very important. If any of your readers can recall anything of interest of her visit at Hobart 17/2/1925-27/2/1925, at Melbourne 4/3/1925-9/4/1925 and Sydney 4/5/1925-29/5/1925, I'd be very happy to hear from them.

2. I am recording details of the careers of Commanding Officers of WW 2. I'd be very greatful to receive any details of the careers of any officers who would like to write to me, I am particularly interested in CO's of vessels from Destroyer Escort upwards in size but would like to receive any assistance at all.

With reference to the "HAMBURG", while she was at Hobart (Queens Pier), HMAS "ANZAC" and "TASMANIA" were at Kings Pier and HMAS "PLATYPUS" was at Argyle Street Pier. "TASMANIA" was commanded at the time, I believe, by Lt Harry Howden.

Hoping you are able to assist me in the above problems and congratulations on a fine magazine.

Yours sincerely,
Chris R. Tappenden

PO Box 187,
East Maitland, 2323

Dear Mr Gillett,

I am researching aspects of the Allied intervention in South Russia, during the civil war, and my specific interest is a Military Mission to the Don and Kuban Cossack territories, in December 1918, led by Commander AGH Bond, the Captain of HMAS Swan.

To obtain a first hand account of the expedition, I would dearly like to speak with former crew members of the ship but the Naval Association have told me there is no organisation for ex members of "Swan". Consequently, this makes it very difficult to contact any remaining members of the crew.

As a means of reaching any survivors I was hopeful that I may be able to publish a notice in your magazine.

Yours sincerely,
MR J. THORPE.

Reader M. Christensen sent in this photo of KXII aground at Fairlight, NSW, 1949. The story of KXII appeared in the July, 1980 issue.

THE

NAVY LEAGUE.

A strictly non-party Organisation, to urge upon Government and the Electorate the paramount importance of an adequate Navy as the best Guarantee of Peace.

THE WORK OF THE NAVY LEAGUE.

The aim of the **Navy League** is to secure a Navy adequate to the needs of the nation and the Empire. It is admitted that British prosperity and security depend upon the command of the sea, and this command of the sea the League strives to ensure and perpetuate.

In its efforts it asks for the support of every British man, woman, and child.

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It seeks to remind the public of the spirit of devotion and self-sacrifice by which British victories were won in the past; to spread information about the Navy by lectures, the distribution of leaflets and literature, the issue of maps and diagrams, the publication of a journal, and the offer of prizes in public and elementary schools.

British children are taught about everything except the Navy; it is one object of the **Navy League** to supplement this gap in the scheme of national education, and thus to enable future citizens to judge for themselves whether a sufficient Navy is being provided.

The **Navy League** is in the truest sense of the word a peace society; it seeks peace with honour. Twice within the past five years a strong Navy has saved the empire from a grave war.

The need for its continued efforts is shown by the fact that in the present year England has only laid down one battleship to the German two, though it is admitted by all parties that the British Navy should be equal to the Navies of any two other Powers.

It also advocates, in season and out of season, that we should encourage "British Seamen for British Ships" to the exclusion of the mass of Foreign Seamen now employed in our Mercantile Marine.

The best means of rendering honour to the memory of Nelson in this centenary year of his great victory, is to join the Society which strives to perpetuate the work done by him in the last great battle of his life, and to assure for England the command of the sea, the **Navy League**.

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All persons approving of its aims and contributing to its funds, according to the following rates of subscription, shall be Hon. Vice-Presidents, Members, or Associates of the League, as the case may be, viz.:—

Hon. Vice-Presidents	£5	0	0	annually
Do. do.	25	0	0	for life
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Do. do. do.	10	10	0	for life
Associates, with publications post free, not less than	0	5	0	annually
Associates, without publications				any less amount

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All Enquiries may be made from, and Subscriptions paid to—

The Secretary of the Navy League, 13, Victoria Street, Westminster, S.W.

WARSHIP PICTORIAL

PHOTOS BY RON HART

The Last Farewell

Originally built for the Royal Navy as HMS APOLLO, HOBART was transferred to the RAN and commissioned on 28th September, 1938.

During World War II HOBART served in the Mediterranean and Red Seas, Indian and Pacific Oceans. While at sea on 20th July, 1943, the cruiser was struck by a torpedo fired by a Japanese submarine. The resultant damage necessitated repairs which kept her out of service until early 1945.

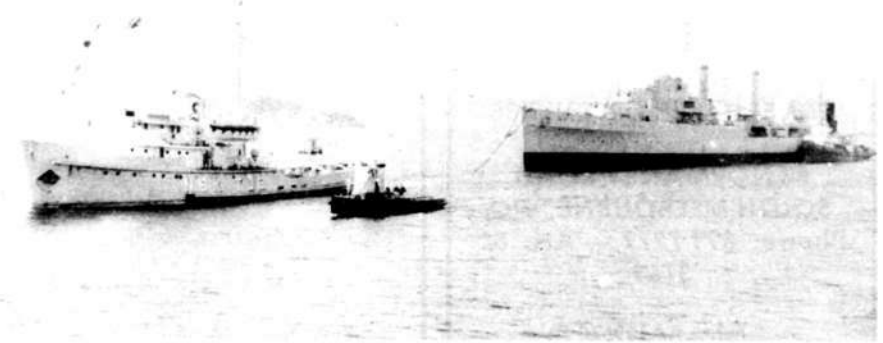
In December, 1947, HOBART paid off into reserve but was refitted and modernised from 1953 to 1956 for further service as a training ship. However, she was not brought into active sea-going service again and remained laid up until her sale.

The accompanying photographs (except the first) were taken on 3rd March, 1962, the day HOBART commenced her final voyage from Sydney.

On 3rd March, 1962, HOBART was towed into the main channel and prepared for the long haul to Japan.

Hobart was sold in late February, 1962, for £170,876. Here she lies alongside Garden Island during early 1961. Some of the last useful items are being removed.

A port quarter view of the 26 year old cruiser, now attached to a buoy and awaiting her tug. Note that "X" turret is absent, removed during her never completed £1,000,000 conversion to a training ship. Despite her age HOBART looks in remarkably good trim.



Now under charge of a Japanese tug, HOBART is assisted from harbour by a Sydney tug while a smaller craft stands by to assist. The cruiser arrived safely at the Miyachi Shipyard, Soki, Osaka, on 2nd April, 1962, where she was subsequently broken up.

THE DUEL

by ROBERT KENDALL PIPER

THE FORMER Japanese Navy pilot Masajiro "Mike" Kawato has occasionally visited the United States in recent years to view the last remaining flyable Zero in the world. The fighter is located at Ed Maloney's PLANES OF FAME collection in California. Mike, previously a Petty Officer Third Class, flew one of these aircraft in what is believed to be one of the last Zero fighter actions in the South West Pacific area during WWII.

He would give his "eye teeth" to fly Maloney's plane which still gives flying displays and airshows in the USA and which even visited Japan several years ago. The closest the present owner will permit Kawato to go is to sit in the pilot's seat, under supervision, and dream . . .

On March 9, 1945, Petty Officer Kawato was ordered to attack what was reported to be an enemy destroyer or light cruiser operating in the Jacquinot Bay area of New Britain in New Guinea. The aircraft mechanics at Rabaul had somehow managed to patch up and arm one of their few repairable Zeros, to be used on a mission.

It was 1730 the same afternoon when RAN's Fairmile B Motor Launch 825 was suddenly attacked by an enemy fighter which dived from a cloud bank ahead and dropped a stick of eight light anti-personnel bombs. They landed 30 metres off the port bow. The motor launch, which had been barge-hunting 10 miles south-west of Cape Orford, could only continue to limp along at 12 knots because of a cracked exhaust manifold on the starboard engine.

Now identified as a Zero, the plane zoomed astern and turned sharply, ran out about 1½ kilometres and came in for a second run at right angles to the vessel. Fire was opened by the launch's Bofors gun as the aircraft straightened out for the new pass. ML 825's opening burst bracketed the plane and appeared to distract the pilot momentarily. Other lighter armament on the launch commenced firing at approximately a thousand metres. Three short bursts of cannon and machine-gun fire were returned from the fighter at 600 metres.

Hits from all guns were observed against the Zero as it bored in. The starboard wing tank was observed on fire as the aircraft rocketed low overhead. Continuing on towards the shoreline the attacker gradually lost height, released some more small bombs, and plunged into the sea. From the time of the first sighting until the plane struck the water had been a mere 42 seconds. The Zero's pilot, on his last operational flight, was none other than 20-year-old Mike Kawato!!

Three of the launch's crew, Ordinary Signaller W. L. Crowe, Able Seaman K. R. Farrington and Able Seaman F. W. Thompson received superficial shrapnel wounds but remained at their guns until the plane crashed. There was also minor damage to "825". The Captain, Lieutenant H. Venables RANVR and former deep sea fisherman from Brisbane, immediately headed towards the crash site. After covering only half the distance the Zero was seen to turn over and disappear.

World War Two Zero pilots at the Planes of Fame Museum, USA. "Mike" Kawato is on the left. (Photo — Robert Piper.)

***Japanese Zero fighter in flight.** (Photo — Robert Piper.)*

What appeared to be a wing protruded from the water at the same time for a few seconds only, before it also was gone in the fading light. Nothing was found and course was resumed for Jacquinot Bay. Motor Mechanic D. R. Carr managed skilful temporary repairs to the starboard engine and speed was increased to 15½ knots so that the wounded could be landed in the shortest possible time.

Captain Venables report was later to highly commend the conduct of the other officers and crew. Their coolness was borne out by the number of strikes compared with the number of rounds fired. The oldest member of the crew was 21 and the average age was under twenty.

Travelling as a passenger aboard ML 825 that day was the Jacquinot Bay Port Director Lieutenant Commander N. M. Gordon RANR (S). He was later to write: "In my experience of active service overseas, I have never seen more organised and efficient action taken".

Unbeknown to those aboard the motor launch, Masajiro, although badly bruised all over, had survived the impact and managed to swim clear. For a while he supported himself on the tail of the Zero until it sank. He then floated for two days and nights before being washed up on a beach. Here he lived off the jungle for two months before being captured by natives and handed over to the Australian Army. He was in turn transferred to a hospital ship and repatriated home after the war.

Up until 1981, Kawato, who is still a current pilot, believed he had been downed by a destroyer sized vessel in the tricky tropical twilight. Mike has also recently written and had published a book on his career during WW2 which included this incident.

A friend of Kawato in the United States made enquiries on his behalf to Defence Historical Studies in April, 1981, seeking further details on this encounter. Information and a photo of ML 825 were sent in reply to be onforwarded to Masajiro, so that after 36 years he would finally know that the "destroyer" that brought him down was an expertly manned thirty-eight metre Royal Australian Navy Fairmile B motor launch.

Mike Kawato is at present touring airshows in the USA, travelling in a large motor home, promoting and selling his book.

ML 825 was sold by the RAN on 24/1/48 to Messrs T. E. Ford, J. E. Wilson and B. R. Vidler. Its present whereabouts today, if she still exists, are unknown.

EDITOR'S NOTE: *The author of this article, is attempting to locate the subsequent career of Lt H. Venables (RANVR) after WW2. Can any reader assist?*

HMS VENTURER — EDATS

One of the Royal Navy's experimental Extra Deep Armed Team Sweep (EDATS) minesweepers, HMS VENTURER visiting Bristol in March, 1981. She and her sister ST DAVID are converted stern-trawlers, fitted to sweep very deep minefields. It is hoped to build a dozen more EDATS sweepers in the near future. *(Photo — C. & S. Taylor)*

In both WWI and WWII the Admiralty requisitioned civilian trawlers for minesweeping and patrol duties. Although the ships served with distinction they were discarded rapidly from the post war fleets.

The mainstay of the Royal Navy's minesweeping fleet since the 1950s has been the once numerous, but now elderly, Ton class which are now long overdue for replacement. Their planned successors are the glass reinforced plastic ships of the Brecon class but, these fine vessels are far too expensive to permit a one-for-one replacement of the Tons. Thus the Royal Navy has the almost impossible task of finding enough money to build new fleet minesweepers/minehunters as well as replacing those used by the RNR Division. One potentially cheap way of replacing RNR ships is to make use of adaptions of commercial stern trawlers for minesweeping duties.

This possibility is being investigated using VENTURER (ex SUFFOLK MONARCH) and ST DAVID (ex SUFFOLK HARVESTER) which were completed in 1973 as trawlers and chartered by the Royal Navy in November 1978.

VENTURER and ST DAVID are based at Bristol and Cardiff respectively and are operated as a pair to test the concept of the 'Extra Deep Armed Team Sweeps' (EDATS). These ships, which measure 392 gross tons and 36.64 x 8.95 x 4m, are powered by two Mirrlees Blackstone 8-cylinder diesel engines developing 2000bhp and driving a single shaft to give a top speed of 14 knots.

Apart from minesweeping gear on the former fish handling deck these vessels carry no armament although, in time of war they would be likely to be fitted with a single 40mm or 20mm gun so as to provide a measure of self-defence.

The function of EDATs trawlers as defined in the 1979 Defence White Paper is 'to counteract the increasing threat of minelaying in deeper waters' and such ships would sweep deep ocean mines by operating as a pair with a wire in between them. The 1979 White Paper went on to say that 'procurement is planned this year (1979) of a new class of twelve EDATS based on a commercial design.' No orders were placed and in the 1980 White Paper reference was again made to the intended purchase of Medium Minesweepers (MSMs formerly EDATS) although as yet no orders have materialised. Eventually, it seems likely that the RNR will receive twelve such ships and in wartime, additional fishing ships could be requisitioned and rapidly modified for minesweeping duties.

As well as satisfying the minesweeping role HMS VENTURER has acted as an RNR training ship. *(Photo — MoD)*

New Warships From Vosper

The recent Royal Navy Equipment Exhibition featured a number of new warship designs from Vosper up to the size of the 2,000 tonne, 95 metre, light frigate.

The company is obviously determined to obtain the contract for the Royal Navy's new economy frigate, although Yarrow is believed to be favourites.

Down scale from the 95 m light frigate designs included the 75 m strike corvette, a 55 m offshore patrol boat to the 44 m offshore patrol vessel.

95 metre Light Frigate.

95 METRE LIGHT FRIGATE

The 95 metre Light Frigate has been designed with a powerful missile outfit of Lightweight Sea Darts, backed by Plessey AWS5 Surveillance Radar, Marconi Tracking Radar and Ferranti CAAIS AIO. The design demonstrates the Vosper Group's capability to conceive compact modern fighting ships to meet the requirements of effective fighting capability, economically.

The frigate will be armed with one OTO Melara 76 mm dual-purpose gun, one Breda-Bofors twin 40 mm mount, 2 x 20 mm weapons, four quadruple light-weight Sea Dart SAM/SSM launchers and two Westland Lynx helicopters. Endurance is 5,000 nm at 14 knots with a total complement of 122 men. A maximum speed of 31.5 knots is available.

75 metre Strike Corvette.

75 METRE STRIKE CORVETTE

This Vosper proposal for a compact but powerful fighting vessel is designed in both strike and offshore patrol variants. The former has a maximum speed of 27.5 knots and an endurance of 3,750 nm at 14 knots. A weapons outfit would include one bofors 57 mm dual-purpose, one Breda-Bofors twin 40 mm and two 20 mm mounts. Four Ottomat SSM launchers, two triple torpedo tubes and one Lynx helicopter complete with armament.

The OPV, a defensive type vessel, is designed to mount one large and two small calibre guns, plus facilities including hanger, (not in strike version) for a Lynx.

Other Vosper proposals for small warships.

All Photos Courtesy Vosper

75 metre Offshore Patrol Vessel.

55 METRE OFFSHORE PATROL BOAT

Like the 75 m OPV, the vessel is fitted for three guns, plus a raised landing platform for helicopters. No hanger is available. Sufficient space has been reserved for a missile system as well as anti-submarine weapons.

44 metre Offshore Patrol Vessel.

44 METRE OFFSHORE PATROL VESSEL

In its search for new ways to resolve some of the difficulties of offshore patrol, the Vosper Group displayed preliminary details of a new Offshore Patrol Vessel, based on the semi-submersible principle. Extensive tank testing and related computer studies on the design's sea-keeping capability have been carried out with most successful results. The 44 m OPV will be capable of maintaining 20 knots in 20 foot seas, and provides an excellent platform for helicopter operations. This unusual design features a 76 mm gun forward, one 20 mm weapon on each beam and a helicopter landing area.

A Hydrographic Survey version of the design has also been developed. The use of the semi-submersible principle provides an excellent platform for surveying duties and is expected to meet the requirements of the Royal Navy Hydrographic Service for coastal surveying.

55 metre Offshore Patrol Vessel.

BOOK REVIEW ARTICLE

HMS NEW ZEALAND at a very chilly Lyttelton on 2nd September, 1919, during the course of a world cruise. (Photo — RNZN).

"The Navy in New Zealand"

by GRANT HOWARD
Reviewed by HARRY ADLAM

Published by A. H. & A. W. Reed Ltd, Wellington, New Zealand
Retail price: $25.95

It is now forty years since the title of the Royal New Zealand Navy was bestowed on a small naval force that had borne the title of the New Zealand Division of the Royal Navy. In "The Navy in New Zealand", the author follows the career of that force. Grant Howard, a public relations officer for the RNZN, as well as being a member of the New Zealand volunteer naval reserve also served as a naval reporter for one of New Zealand's largest newspapers. He now is heavily involved with the sea cadet movement. It would be quite proper to say that Grant Howard is well and truly navy minded and oriented. He is also an honest man, and records history as it happened, the good points and the bad get equal billing. To me, he is a very refreshing writer, his work is quite accurate, very clear and easy to read. As far as the written word is concerned I have only one complaint. Every measurement has been put in metric form, and I had some difficulty imagining "AMOKURA's" boilers working at 999 kilopascals in 1907. But then again I am a confirmed feet and inches person.

New Zealand has a wealth of naval history, starting from the time that Lieutenant James Cook, RN, first set foot on New Zealand soil in October 1769, at what is now Gisborne. Grant Howard commences his work at that point. The first Governor of New Zealand was an RN Captain named William Hobson, and so the naval link continued.

In regards to naval defence, this was at the time and indeed for many years to come, the duty of Royal Navy ships stationed in New Zealand waters, but in 1846 a gunboat was purchased for the harbour defence of Porirua Harbour. Not a large vessel by any means, the gunboat was formerly a lifeboat from a wrecked barque, but was fitted with a 12 pounder gun and could be either pulled or sailed. With this boat the New Zealanders actually beat their Australian Colonial cousins in the establishment of their own navy.

Not all native races take kindly to white men taking over their lands, and the Maori certainly didn't appreciate losing theirs. The Maori Wars, which raged for some considerable time, saw many naval actions.

A number of Victoria Crosses were won. However, one of the salient features of naval warfare in New Zealand at that time was the use of armoured gunboats, and well to the fore in this case was the little "PIONEER", a gunboat built in Sydney, to the order of the New Zealand government in 1863. She boasted two armoured turrets, both of which are preserved in New Zealand to the present day. Two other armoured gunboats were built in Sydney, and the remains of one, "RANGIRIRI", is still visible at Hamilton.

To show that New Zealanders were dedicated to their own well being, volunteer defence forces were raised, and two distinct groups emerged. The naval component went under the title of Naval Volunteers and were dressed as seamen. Unfortunately they came under military control, as did four torpedo boats ordered in England in the early 1880s. The boats were manned by the "Navals".

The birth of formal training, although not entirely naval, began with the acquisition of the old gunboat "SPARROW" in 1905. This ship, to be re-named "AMOKURA", trained many young "Kiwis" until paid off after the Great War. The ship was operated by the Marine Department, not by Defence.

To form a New Zealand Navy the Imperial goverament transferred the old 3rd class cruiser "PHILOMEL" to New Zealand control in 1914, but the Great War postponed the important event, as "PHILOMEL" was re-called to the colours "for the duration". In 1921 the cruiser HMS "CHATHAM" arrived in New Zealand to be the first seagoing ship of the new New Zealand Division of the Royal Navy. Meanwhile the old "PHILOMEL" started her life's work in training young seamen. Grant Howard takes us through these major steps with great clarity up to the outbreak of World War Two when we find that a small but well trained naval force existed, still under the title of the New Zealand Division.

World War Two saw the "Kiwis" in the thick of it from the very beginning. HMS "ACHILLES" bringing New Zealand's name to the fore in the well-known Battle of the River Plate. But this was not the only glorious action fought! New Zealanders were well represented in the areas in which the Royal Navy was engaged. From 1941 the New Zealand Division was to be known as the Royal New Zealand Navy, and it is with that title that the bulk of World War Two was fought. Heavily engaged in the Solomon Islands, both New Zealand cruisers were torpedoed with loss of life. The corvettes "KIWI" and "MOA" were engaged in a hectic night action off Guadalcanal with the large Japanese submarine "I-1".

After the war, the Royal New Zealand Navy got down to its peace time routine, but in 1947 a mutiny over pay conditions occurred. Despite losing some very well trained men at this time the Navy settled down after the trouble was over and expanded to the efficient force that now exists. Naval writers normally skip over troubles such as this, and indeed in Australia there is great reluctance to report a similar event during the Great Depression years. Grant Howard seems to be one of those rare historians who keeps history in perspective. He also records the cruiser "ROYALIST's" fall from grace when she broke down completely at sea with salt water contamination of her boilers. But throughout all these incidents, and indeed throughout the book, Grant Howard is extremely fair without indulging in journalistic sensationalism.

Post war development of the RNZN is well discussed as are the future requirements of the navy. The entire book is well illustrated with photos and in the earlier days, with sketches. Most of the photos come from official sources. I was particularly impressed with the view of the present "WAIKATO" with the ex-Australian minesweeper "KIAMA" in company at sea. However in the case of "PHILOMEL" the only view is one taken of her in Malta before she ever came to New Zealand. I for one would have preferred to have seen a photo of her as she appeared as the "cradle of the Royal New Zealand Navy".

To my way of thinking this book is long overdue. However, the timing of its arrival was the 40th anniversary of the formation of the RNZN. Summing up "The Navy In New Zealand", I found the book to be a well written and well researched record of the growth of a fine, war-tested fighting force, told in a very easy manner which holds the reader's attention from start to finish. Grant Howard deserves great credit for such a fine work.

The frigate HMNZS WAIKATO and the minesweeper HMNZS KIAMA steam in company in the Hauraki Gulf. KIAMA also served as a training ship. (Photo — RNZN).

NAVY LEAGUE DIVISIONAL & CADET NEWS

THE NEW LEAGUE AWARD

In December 1980 the Federal Council of The Navy League met in Melbourne, for the 14th Annual Meeting.

Among the agenda items dealt with was one which proposed the institution of an Annual Trophy for presentation to the RAN. It was recognised that within the service there are a host of trophies, cups, shields and awards for which ships and establishments compete each year. Such competitions however, generally relate to areas of operational efficiency, sporting achievement, etc, and the trophies are, in the main, presented within the Service and by the Service.

It was agreed that in view of and the many instances of Service response to situations of civilian distress and the considerable amount of community aid which naval personnel contribute each year, that it would be very fitting for an annual award to recognise such aid to the civil community. The Council agreed that the Navy League as the "Civilian arm of the Navy" was ideally placed to take the initiative and institute such an award. Subsequent discussions with senior Naval Officers disclosed that the concept of recognition of community aid received ready acceptance within the Navy. Finally the proposal was submitted to and agreed by VADM G. W. Willis, RAN, the Chief of Naval Staff, and "The Navy League — Community Aid Award" became a reality.

The general rules which govern the presentation of the trophy provide for the nomination by operational or administrative authority of a ship, group of ships, shore establishment or RANR Port Division, considered most worthy of recognition by reason of significant contribution of aid to a civilian community anywhere in the world. Such recommendations are submitted to Navy Office, who select the top three contenders for final consideration by the Federal Council of the League.

Formal presentation of the Shield is made on behalf of the Naval League by the Federal President (or his nominee) and the winner retains the trophy, suitably inscribed, for twelve months at which time a small replica plaque is provided for permanent retention.

The three nominations submitted for Council consideration in the inaugural year were all most worthy contenders. HMAS MELBOURNE was nominated for her part in the rescue of and subsequent assistance rendered to, ninety-nine Vietnamese refugees located adrift in the South China Sea, in an unseaworthy *15m vessel with an unserviceable engine.*

The Ship's company extended commendable compassion, hospitality and professional assistance to these unfortunate people during their five day period on board.

The nomination of HMAS PENGUIN was based on a deep involvement in a wide range of community affairs throughout the entire twelve months of the qualifying period. The breadth and depth of PENGUIN's contribution to the civil community was *most impressive and included:*

- Direct participation in fund raising events.
- Voluntary provision of cooks to the local community centre.
- Support of the local orphanage.
- Participation in the Taronga Park Zoo sponsorship programme.
- *Provision of facilities to community organisations.*
- Participation in the State Emergency Services exercise at Kingsford Smith Airport.
- Assistance to local boats in distress.
- Provision of fire fighting teams when required.
- Ready availability of the Naval Support Command Band for a wide range of public appearances and charitable functions.
- A significant contribution to the diving community. The diver school provides a 24 hour service which reacts to civilian diving accidents and other medical emergencies, requiring hyperbonic oxygen.

The third contender was the Brisbane Port division RANR who were nominated for their major contribution to the civilian community of the Solomon Islands. The Division provided the bulk of Reserve personnel deployed under the Australian Aid Abroad Scheme to clear channels through Island reefs, providing much needed access for fishing boats and coastal traders to normally isolated communities. Other items of civil aid provided by the Brisbane Reserve included the clearance of dangerous wreckage in Moreton Bay by Diving Team 8, and numerous public and charitable performances by the RANR band.

The task of the Federal Council to select one of these three worthy nominees as the recipient of the inaugural award was most difficult. It was only after extensive discussion and a very close vote that HMAS PENGUIN was selected for the Community Aid Award for the twelve months ended 30 June, 1981.

Formal presentation of the very handsome shield took place *at Ceremonial Divisions in HMAS PENGUIN on 30 November,* 1981. The ceremony was attended by the Flag Officer, Naval Support Command, RADM A. J. Robertson, DSC,RAN, together the the Mayor of Mosman, Barry O'Keefe, QC. The NSW Division of the League was represented by the President, Peter Ballesty and committee member Ted Bryden-Brown and the Commanding Officer HMAS PENGUIN, Capt J. R. DaCosta, RAN, accepted the shield from our Federal President Commander Geoffrey Evans.

Commander Evans addressed the ship's company and commended them on their high level of community involvement and their readiness to provide assistance to meet a wide range of civilian situations, such aid was in the best traditions of the Royal Australian Navy.

Cadets and 40/60 Bofors from TS HENTY.

VICTORIA

Recently the Portland Community hosted a "Back To", during which one of Portland's founding fathers, Mr K. S. Anderson, CBE, MC, had his book "The Story of a Port" published and officially launched by the Prime Minister, Mr Malcolm Fraser (the local member). The PM considers TS HENTY (Portland Unit) as "his unit" and the unit as such is proud of this recognition. A Guard of Honour was formed for the PM before his departure. The PM also reviewed the street parade the following morning. The accompanying photo illustrates the Cadets following the Victorian Naval Band. On the float was the unit's 40/60 Bofors gun.

TS HENTY currently has 51 Cadets and when working on a per capita basis (8500 population), must be the largest unit in Australia. Most cadets have done sea time in RAN ships, which call regularly at the Port. Annual jobs include a 24 hour guard on the shrine at the Memorial on Anzac Day, Bridgewater Bay Anzac Church service, Sea Sunday church service, sailing regattas and combined camps. Annual training at HMAS CERBERUS was also enjoyed with TS HENTY taking out the cross-country trophy in 1981.

Unit CO is presently LCDR Jim Bryden, who joined the unit as a cadet on 4th April, 1957. This year sees Jim in his 25th year with the unit; quite a rare distinction! The unit is now going from strength to strength, with the RAN now owning the building and undertaking most needed repairs. Vessels owned by the unit include two Replacement Training Craft, a 15 foot clinker double banked dip lugged rigged ex life boat, and more recently the welfare committee bought a 16 foot 25hp aluminium runabout for the cadets to use as a crash boat whilst sailing operations are underway.

Geelong Naval Cadets Write History

The Geelong Unit of the Royal Australian Naval Cadets, Training Ship BARWON has been awarded the Navy League of Australia Shield for the second year in succession.

The Shield is awarded to the Unit judged to be the Most Efficient Unit in Australia, after the Most Outstanding Units in each State are inspected by the Director of Royal Australian Naval Reserves, Captain E. J. Keane, RAN.

No other Unit in Australia has ever won the Shield for two consecutive years nor has a Unit ever won the trophy 3 times. Geelong's win brings Victorian successes to four, equalling Queensland's wins. Victoria has seven Units and Queensland has 11 Units.

New South Wales (14 Units), Western Australia (6 Units) and South Australia (6 Units) have each won the shield three times, Tasmania with 6 Units has won it once.

BARWON also won the Victorian Inter-Unit Regatta and the Victorian Inter-Unit Cross Country Trophies in 1980, and the Victorian Inter-Unit Parade Ground Trophy at HMAS CERBERUS in May last year.

Winning the Shield two years in a row is an achievement that will be extremely difficult to equal. Only one other State has ever won the award in successive years and that was Queensland when TS MAGNUS won it in 1960 and TS GUYUNDAH in 1961.

The entire ship's company of 93 cadets and 11 officers and instructors are extremely proud of their achievement and feel that the concentrated effort involved in training for these awards has been completely worthwhile.

Commander Geoffrey Evans (left), Rear Admiral Andrew Robertson (centre) and Captain John DaCosta (right) at the shield presentation. *(Photo — Mosman Daily)*

WESTERN AUSTRALIA

WA Division Celebrate 30th Birthday

by VIC JEFFERY

On September 15, 1982 the Western Australian Division of the Navy League of Australia celebrated its 30th Birthday.

To mark the occasion a cocktail party was held to create an opportunity for all present and past members to get together.

The decision to form the WA Division was taken in the parlour of the then Mayor of Fremantle, the late Sir Frederick Samson on September 15, 1952.

Among those present were the Naval-Officer-In-Charge, West Australia Area, Captain F. Bryce Morris; Mr H. L. Brisbane; the Deputy Director of Navigation, Captain N. A. Boulton and representatives of various shipping companies and associations.

Captain Morris said that it was essential that a State like WA which had such a large seaboard, should ensure that it was adequately protected. He pointed out that the Navy League was very strong in Britain and other Dominions, as well as the Eastern States.

Captain Morris said that the Navy was prepared to supply uniforms and training facilities, and if necessary, a per capita grant.

Sir Frank Gibson, MLC (whose son, Lieutenant Commander Keith Gibson, RANR (Retd), recently served on the WA Executive Council) was elected President and Commander J. C. B. Anderson, Secretary.

1982 WA DIVISION EXECUTIVE COUNCIL

Patron: His Excellency, the Governor of Western Australia, Rear Admiral Sir Richard Trowbridge, KCVD, KStJ.

President: Mr Arthur Bancroft.

Vice Presidents: Mr Arthur Hewitt, Mr Vic Jeffery.

Secretary: Mrs Philippa Paramor.

Treasurer: Mr Arthur Hewitt.

Publicity Officer: Mr Vic Jeffery.

Committee: Mrs Joan Dowson, MBE; Mr Robert Clyde; LCDR John Johnson, MBE, RAN (Retd); Mr Merv Munro; Mr Milton Morris; Mr Ray Somerville; Mr Joe Steele; Captain Len Vickridge, OBE, VRD, RANR (Retd).

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