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THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

Parliamentary Standing Committee on Public Works

REPORT

relating to proposed development works at

H.M.A.S. TARANGAU

at

Los Negros Island

(SIXTH REPORT OF 1970)

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

DEVELOPMENT WORKS AT H.M.A.S. TARANGAU
LOS NEGROS ISLAND

R E P O R T

By resolution on 12 March 1970, the Senate referred to the Parliamentary Standing Committee on Public Works for investigation and report to the Parliament, the proposal to carry out development works at H.M.A.S. Tarangau, Los Negros Island in the Manus District of the Territory of Papua and New Guinea.

The Committee have the honour to report as follows:

THE COMMITTEE'S INVESTIGATION

1. The Committee received written submissions and drawings from the Departments of the Navy and Works and took evidence from their representatives at a public hearing in Canberra. The facilities at H.M.A.S. Tarangau were inspected as well as the present oil fuel installation and the sites for the various works which make up the current reference.

THE REFERENCE

2. The proposal referred to the Committee involves the construction of an oil fuel installation and associated mooring facilities, the installation of new electricity generating sets and a new electrical reticulation system, air conditioning the communications buildings and the erection of five houses.
3. The estimated cost of the work when referred to the Committee was \$1.1 million.

H.M.A.S. TARANGAU

4. Location and Facilities H.M.A.S. Tarangau is the shore based headquarters of the Royal Australian Navy in the Papua and New Guinea area and is located on an 800 acre site on Lombrum Point on Los Negros Island in the Manus District of the Territory.
5. Los Negros Island, adjoining Manus Island and smaller outlying islands, form Seeadler Harbour, the deepwater berth extensively used by the Allied forces during the latter phases of World War II in the Pacific. Besides the extensive harbour anchorages, the base provided a large oil fuel installation, workshops, stores and living accommodation.
6. Many of the facilities were disposed of after the war but in 1949 the Commonwealth acquired the remaining facilities and subsequently the land on which H.M.A.S. Tarangau is now situated. The facilities taken over at that time included a wharf, the oil fuel installation, workshop buildings, stores and accommodation buildings. The oil fuel installation is actually located outside the base but is controlled from it.
7. Since 1949 a number of new structures have been built including a wharf, a hospital, school buildings, a wardroom block, a junior sailors' block, married quarters and refrigeration plant.
8. Domestic airlines service the area through Momote airport which is on Los Negros Island, nine miles by road from H.M.A.S. Tarangau. The airport is maintained by Department of Civil Aviation and is supplied with electricity by the Navy.

9. Functions H.M.A.S. Tarangau has four principal functions, viz.

- a headquarters and communications centre for the Royal Australian Navy in the Papua and New Guinea area;
- limited refueling and base support facilities for the Fleet;
- a headquarters and training establishment for the Papua and New Guinea division of the Royal Australian Navy;
- an operational and maintenance base for the Papua and New Guinea coastal security force of the Royal Australian Navy.

10. To support these functions, the complement of H.M.A.S. Tarangau includes 16 R.A.N. officers, 2 R.A.N. nursing sisters, 7 Papua and New Guinea midshipmen, some 120 R.A.N. and 200 Papua and New Guinea sailors and recruits. There are also 330 civilian indigenous employees. The five patrol boats comprising the coastal security force and their crews are also attached to H.M.A.S. Tarangau.

THE NEED

11. Oil Fuel Installation The oil fuel installation, which is not on Commonwealth land, originally contained some 60 tanks constructed of bolted steel plates to wartime standards and an associated pipeline system. Over the years, the number of serviceable tanks has gradually decreased until now only three are in use. It was clear that each of these three tanks is deteriorating quickly and has only a short remaining life.

12. The present berthing arrangements for vessels unloading or taking on fuel amply demonstrate the ingenuity of the Navy to improvise with inadequate equipment, but from an operational viewpoint they leave a good deal to be desired.

13. It was equally evident that if the base is to effectively fulfill its function as a refueling point for the Fleet, then there is a requirement for a new oil fuel installation including storage tanks, a pipeline reticulation system and proper mooring facilities.

14. Electricity Supply The powerhouse contains five generators and supplies electricity to the base area and the airfield at Momoto. The generating sets vary in age from 15 to 25 years, their present operating capacity being less than two-thirds of their original rating. They are now unreliable and we observed at first hand the maintenance problems that are continually recurring because of their obsolescence.

15. The overhead electrical reticulation system is similarly in poor condition and requires rehabilitation concurrently with the replacement of the generators.

16. We agree that there is a need for new generating plant and a new electrical reticulation system.

17. Air Conditioning Plant The buildings housing the transmitter and receiving facilities are provided with treated air from a number of small window type air conditioners. These units are inadequate and do not provide the precise conditions of humidity and temperature required by modern communications equipment.

18. We believe that more sophisticated air conditioning facilities are required to ensure that the communications equipment, which is used on a 24-hour per day basis, has optimum operating conditions.

19. Housing At the present time, there are 54 European married quarters, including 27 tropical houses of recent permanent construction, and 27 temporary

units converted from Quonsett huts built during the war. This number of houses is insufficient to allow all married members to be accompanied by their families. The resulting practice, which is far from ideal, is to post portion of the ship's company unaccompanied for 12 months in lieu of the normal posting of two years.

20. We therefore agree that there is a need for the new houses proposed in this reference.

SITING

21. The three proposed oil storage tanks are to be constructed on Commonwealth land within the base and in a well sheltered gully below the hospital. The reticulation will be generally above the ground passing through a pump house at the wharf.

22. The mooring dolphins are to be located north-east of the wharf area but close to it and the associated day lead is to be on Nutt Point to the south.

23. The new generating sets are to be installed in the existing powerhouse.

24. The communications buildings are located adjacent to their associated aerial systems and the new air conditioning plant will be installed in the existing buildings.

25. The five new houses are to be located in the area set aside in the approved master plan for this purpose. They will adjoin other similar houses and services are immediately available.

26. The Committee believe that in each case the sites chosen for the construction of the various components of this reference are suitable.

BUILDING PROPOSALS

27. Oil Fuel Installation The oil fuel storage facilities are to comprise two furnace fuel oil tanks and one automotive diesel oil tank of 4,000 and 3,500 tons capacity respectively. Separate pipelines for each type of fuel are proposed together with fueling points on the wharf and a fuel transfer pump for transferring fuel from tanks to ships. Remote control of the pump from the wharf will be provided.
28. The tanks are to be of welded steel construction, identical in volume and each will be provided with drained earth bunds and fire protection against the possibility of operational accidents. The tank area will be floodlit.
29. The pipelines will be of steel laid above the ground, except at road crossings and will generally follow existing roads. A portable air compressor will be provided to scavenge oil from the floating pipeline between ship and shore.
30. The two mooring dolphins will be designed for tankers when replenishing the fuel storage tanks and large naval ships during bunkering operations. They will each be 20 ft in diameter, supported on concrete filled steel piles with tar epoxy corrosion protection. Each will have a 3 ft reinforced concrete deck and be equipped with a 50 ton capacity quick release mooring hook.
31. The day lead on Nutt Point will provide the correct line of approach for ships using the mooring facilities. It will be a 30 ft high tubular steel tripod of similar design to the day lead on Lombum Point.
32. Generating Sets and Electrical Reticulation The five existing diesel generating sets vary in nominal capacity from 135 to 256 KW. It is proposed to replace them in the powerhouse with three new sets each of 365 KW capacity and complete with a sea water cooling system and central switchboard.

33. The new overhead reticulation system will be designed to comply with the S.A.A. Wiring Rules and the standards of the Papua and New Guinea Electricity Commission. The route length is about 7,000 yards. Existing substations will be reconditioned and the capacity of the substations at the transmitter station and in the housing settlement will be increased. The underground cable to the transmitter building is to be replaced by one of greater capacity and a new switchboard and floodlighting provided.

34. Air Conditioning It is planned to supply ducted packaged units of suitable capacity to the two communications buildings and to retain the existing conditioners as standby units. The installation is to be suitable for tropical conditions and for freedom from radio interference.

35. Houses The proposed new houses will be of the three-bedroom C.R.1. type built on flat sites which are already serviced by roads, water, sewerage and power supply. Each house will be equipped with a solar hot water system with an electrical booster, an automatic washing machine and refrigerator, tool shed and rotary clothes hoist, in accordance with the Services Scales and Standards of Accommodation.

36. On enquiry, we found that the Navy's experience with some 20 C.R.1. type houses at H.M.A.S. Tarangau has been most satisfactory and we therefore believe that the particular design is suitable.

37. Committee's Recommendation The Committee recommend the construction of the works in this reference.

ESTIMATE OF COST

38. The estimated cost of the work when referred to the Committee was \$1.1 million as follows:

	\$
Oil fuel installation, mooring facilities and day lead	535,000
Generating plant and electrical reticulation	410,000
Air conditioning	60,000
Houses	95,000
	<u>1,100,000</u>

PROGRAMME

39. It is expected that after an approval to proceed is given, design and tender documentation for the various components will vary between 4 and 21 weeks according to the complexity of the particular work. Construction time will also vary but it is expected that the whole of the work will be completed by mid-1972.

RECOMMENDATIONS AND CONCLUSIONS

40. The summary of recommendations and conclusions of the Committee is set out below. Alongside each is shown the paragraph in the report to which it refers.

Paragraph

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| 1. | THERE IS A REQUIREMENT FOR A NEW OIL FUEL INSTALLATION INCLUDING STORAGE TANKS, A PIPELINE RETICULATION SYSTEM AND PROPER MOORING FACILITIES. | 13 |
| 2. | THERE IS A NEED FOR NEW GENERATING PLANT AND A NEW ELECTRICAL RETICULATION SYSTEM. | 16 |