Parliamentary Standing Committee on Public Works

REPORT

relating to the proposed

HMAS *ALBATROSS* STAGE 2 REDEVELOPMENT, NOWRA, NSW

(Third Report of 2000)

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA
2000

The Parliament of the Commonwealth of Australia

HMAS *Albatross* Stage 2 Redevelopment, Nowra, NSW

Parliamentary Standing Committee on Public Works

6 April 2000
Canberra

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Contents

Membership of the Committee

Chair	Hon. Judi Moylan MP	
Deputy Chair	Hon. Janice Crosio MBE, MP	
Members	**House of Representatives**	**Senate**
	Mr John Forrest MP	Senator Paul Calvert
	Mr Colin Hollis MP	Senator Alan Ferguson
	Mr Peter Lindsay MP	Senator Shayne Murphy
	Mr Bernie Ripoll MP	

Committee Secretariat

Acting Secretary	Mr Michael Fetter
Inquiry Secretary	Mr Ian Ireland
Administrative Officer	Mrs Angela Nagy

Extract from the Votes and Proceedings of the House of Representatives

No. 73 dated Monday, 11 October 1999

12. PUBLIC WORKS—PARLIAMENTARY STANDING COMMITTEE—REFERENCE OF WORK—HMAS *ALBATROSS* STAGE 2 REDEVELOPMENT, NOWRA, NSW

Mr Slipper (Parliamentary Secretary to the Minister for Finance and Administration), pursuant to notice, moved—That, in accordance with the provisions of the *Public Works Committee Act 1969*, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for consideration and report: HMAS *Albatross* Stage 2 Redevelopment, Nowra, NSW.

Debate ensued.

Question—put and passed.

1. On 11 October 1999, the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report the proposed HMAS *Albatross* Stage 2 redevelopment, Nowra, NSW.

THE REFERENCE

2. The terms of the reference were as follows:

> The Department of Defence proposes to develop further the Royal Australian Navy air base by implementing a second stage of construction. This will provide purpose-built facilities and services that will improve the operational reliability and organisational functionality of this base. These works are a natural continuation of the major redevelopment of HMAS *Albatross*, which under the Defence stage 1 project was agreed to by the Public Works Committee in April 1998. The stage 1 works included an integrated squadron complex with HS816 Sea Hawk helicopter and HS805 Sea Sprite helicopter squadrons, an air traffic control complex, an airfield lighting system, aircraft shelters, an explosive ordnance storage complex and training and photographic centres. The design, documentation and construction of these facilities is currently progressing with completion planned for October in the year 2000.
>
> The second stage of proposed works will provide for the upgrade of existing arrester gear, a helicopter corrosion control facility, flight deck procedural training simulators, a visiting military aircraft hardstand, perimeter security fences, a helicopter underwater escape training simulator, a gymnasium, extension of taxiway bravo and the demolition and relocation of buildings and engineering services. Future proposals for works at HMAS *Albatross* will address further developments or upgraded facilities extending beyond economical repair or upgrade.

3. When referred to the Committee, the estimated out turn cost of the proposed work was $41.0 million.

THE COMMITTEE'S INVESTIGATION

4. The Committee received a written submission from the Department of Defence (Defence) and took evidence from Defence officials at a public hearing held at HMAS *Albatross* on 1 March 2000. The Committee also received a written submission from Shoalhaven City Council and took evidence from a representative of the Council and Mrs Joanna Gash M.P. (Federal Member for Gilmore).

5. Written submissions were also received from the following organisations:

   - Australian Heritage Commission;
   - Environment Australia - Commonwealth Department of the Environment and Heritage;
   - NSW Environment Protection Authority;
   - NSW National Parks and Wildlife Service;
   - NSW Department of Land and Water Conservation; and
   - Integral Energy Australia.

6. Prior to the public hearing the Committee inspected HMAS *Albatross*. The following facilities and sites were included in the inspection:

   - administration centre to Stage 1 redevelopment new construction sites of the 816/805 Squadron complex, taxiway A and aircraft shelters;
   - sites for Stage 2 redevelopment corrosion control facility and flight deck simulators;
   - existing flight deck trainer;
   - sites for Stage 2 redevelopment helicopter ordnance loading apron and Stage 1 explosives ordnance complex;
   - fencing and Crown land abutting the Base in the south-west parachute drop zone;
   - sites for Stage 2 redevelopment ancillary buildings and visiting miliary aircraft hardstand;
   - operation of runway 26/08 arrestor gear
   - Stage 1 redevelopment air traffic control tower to view sites for taxiway B extension, aircraft daily wash and runway 03/21 arrestor gear;
   - Sites for Stage 2 redevelopment underwater escape training simulator and new gymnasium; and
   - existing gymnasium.

Public hearing

7. The public hearing was held at HMAS *Albatross* on 1 March 2000. At the public hearing Defence took several questions from the Committee on notice. The Committee notes that it only received written responses from Defence to those questions on 30 March.

BACKGROUND

Location

8. HMAS *Albatross* is located ten kilometres south-west of Nowra, NSW, 12 kilometres north-west of Jervis Bay and 176 kilometres south of Sydney. The site was selected in 1938 to fulfil regional civil aviation requirements and to provide an advanced operational base for air defence by the Royal Australian Air Force (RAAF).

Role of HMAS *Albatross*

9. HMAS *Albatross* is the Royal Australian Navy's (RAN) major establishment for the provision of operational, training, engineering, administrative, and logistic support for naval air squadrons. It is also the supporting Base for a number of units responsible to the maritime, training and support command units, including a detachment of Royal New Zealand Air Force Skyhawk aircraft.

10. HMAS *Albatross* also provides aviation-related operational and maintenance support for Fleet units. Other functions at HMAS *Albatross* include the Army Parachute Training School and the commercially operated Naval Aviation Museum.

11. There are 1411 personnel employed at HMAS *Albatross*, comprising:

- 900 Naval;
- 84 Air Force;
- 87 Army;
- 223 Defence civilian personnel; and
- 117 civilian contractors.

History of development

12. Construction of Defence facilities at HMAS *Albatross* commenced in 1940 and by September 1941 facilities were upgraded to support the war effort. The aerodrome was taken over by the Department of Air in January 1941, followed by the formation of RAAF Station Nowra in May 1942. In October 1944, the Royal Navy Fleet Air Arm commenced flying operations from the

Base in support of naval forces deployed to the south-west Pacific. Further substantial upgrading of hangars and runways continued to June 1945.

13. The Fleet Air Arm vacated Nowra in March 1946. Following a decision to retain the Base for naval aviation purposes, the aerodrome was transferred to the RAN as Naval Air Station Nowra. On 31 August 1948, it was commissioned as HMAS *Albatross*.

Projects examined by the Committee

14. The development of HMAS *Albatross* has spanned more than three decades involving a number of large scale projects. The Committee has been involved in this development. Projects examined and reported on by the Committee between 1968 and 1980 were:

- avionics workshop (*Committee's Third Report of 1968–Parliamentary Paper 4/1969*);
- replacement accommodation (*Committee'Seventh Report of 1968-Parliamentary Paper 73/1968* and *Eighteenth Report of 1969-Parliamentary Paper 111/1969*); and
- new hangar complex (*Committee's Eight Report of 1980-Parliamentary Paper 148/1980*).

15. The first stage of a major development of the establishment was examined and reported on by the Committee in 1986. *(Committee's Twelfth Report of 1986—Parliamentary Paper 308/1986)* This proposal, estimated to cost $19.27 million ($27.9 million at 1997 prices), involved the following elements:

- a new building to house a flight simulator and aircraft weapons system support centre for Seahawk helicopters;
- a maintenance facility for Seahawk helicopters;
- extensions to the avionics workshop building;
- a new supply complex building;
- a new building to house the RAN tactical electronic warfare support section;
- upgrading of fire protection in Hangars 'A', 'B' and 'J'; and
- basic upgrading of services.

16. The second stage of the major development of the establishment was examined and reported on in 1991 *(Committee's Seventh Report of 1991—Parliamentary Paper 226/1991).* This project, estimated to cost $9.9 million ($10.8 million at 1997 prices), involved:

- a new building to house the command, operations, communications and administration centres;
- a new building to provide office facilities for technical and administrative staff of two squadrons and the upgrading of associated hangar annexes; and
- upgrading of high voltage reticulation and emergency power supplies.

17. More recently, the first stage of another major development was examined and reported on in 1998 *(Committee's First Report of 1998—Parliamentary Paper 45/1998)*. This project, estimated to cost $69.3 million involved:

- maintenance and storage hangars for Seasprite and Seahawk;
- shelters for fixed wing fleet and support aircraft;
- air traffic control facilities;
- explosive ordnance storage facilities;
- replacement airfield lighting;
- photographic centre;
- training complex; and
- engineering services and civil works.

18. In summary, over the past three decades, the Commonwealth has made substantial investments in facilities at HMAS *Albatross* designed to overcome deficiencies in infrastructure and facilities.

Assured future of HMAS *Albatross*

19. The Committee questioned Defence about the continuing relevance of HMAS *Albatross* in its present location, particularly in view of the forthcoming Defence White Paper. Defence advised the Committee that the RAN would expect to continue to operate from HMAS *Albatross*, noting that the major practice area for the fleet is off Jervis Bay and that the fleet also has the missile and naval gun fire support ranges in adjacent waters.

THE NEED AND WHAT IS PROPOSED

Upgrade of existing arrestor gear (runway 03/21)

20. Arrestor gear is designed to catch the arrestor hook of jets in emergency situations. The two runways at HMAS *Albatross* are fitted with BAK 14 (runway 08/26) and BAK 12 (runway 03/21) arrestor systems. The BAK 14 arrestor system is designed for permanent installation while the BAK 12 system is a portable system which requires manual rigging and de-rigging.

21. Defence advised the Committee that runway 03/21 suffers from a number of operation safety limitations associated with the BAK 12 system, namely, multiple recoveries are not possible unless there is sufficient time to manually reset the cable and the cable cannot be left across the runway as most wheeled-aircraft cannot pass over the cable.

22. Defence advised that the installation of an Instrument Landing System (ILS) on Runway 03/21 has made that runway the prime operational runway and in poor weather conditions the runway would provide the best safety margin for emergency landings. Additionally, Defence advised that the cost of operating the manual system has averaged $10,000 per month and that the proposed BAK 14 upgrade will have a payback period of around 8 years.

Proposal

23. It is proposed to replace the BAK 12 arrestor system on runway 03/21 with a BAK 14 system.

Consideration by the Committee

24. A number of aspects of the need for the proposed work were raised by the Committee with Defence at the public hearing. These were:

- *the probability of having to face a multiple recovery under an emergency situation*

  Defence advised that the probability is very low.

- *the consequences of not replacing the arrestor system*

  Defence advised that over a five-year period HMAS *Albatross* conducted approximately 15 emergencies involving the use of arrestor gear. Valuable aircraft, and more importantly lives, were saved as a consequence.

  The use of Sydney airport for emergencies is not a feasible alternative due to heavy civil airline traffic and the need to overfly heavily populated areas.

Committee's Conclusions

25. **The existing arrester gear on runway 03/21 is a portable system which requires manual rigging before use in emergencies and manual de-rigging to allow normal runway operations.**

26. **The proposed replacement of the BAK 12 arrestor system on runway 03/21 with a BAK 14 system will overcome the potential in emergencies of having to route military aircraft in distress to civilian airfields and produce savings in manpower.**

Helicopter corrosion control facility

27. Aircraft operating in marine environments require washing, drying and the application of corrosion inhibitors. There are 30 helicopters based at HMAS *Albatross* comprising Seahawk, Sea King, Squirrel and Bell helicopters. Also, there are 11 Sea Sprite helicopters being acquired.

28. Currently, aircraft at HMAS *Albatross* are washed manually with water and detergent. Following a drying process corrosion inhibitors are applied.

29. Defence advised that the current manual process is time consuming, manpower intensive, takes maintainers away from their primary function of aircraft maintenance, is environmentally unfriendly and is unsafe for personnel.

Proposal

30. It is proposed to construct an enclosed automated corrosion control facility. The facility will be modelled on the washdown facility at 5 Aviation Regiment RAAF Townsville and will provide for collection and containment of contaminants, and the reuse of water.

Consideration by Committee

31. The Committee questioned a number of aspects of the proposal, including:

- *if the current process is time consuming*

  Defence advised that the current process involves 86 personnel hours per week and 344 personnel hours per month. This, Defence believes is a very inefficient use of highly trained and skilled manpower.

  Defence estimates that the proposed system may result in savings in the order of 900-1000 manhours per year. Additional savings will result with the introduction of 11 Seasprite helicopters. Savings in maintenance of as much as 50 per cent are also estimated.

- *if the current process is environmentally unfriendly*

  When questioned by the Committee whether the current process is environmentally unfriendly, Defence advised that it was because of the washing compounds used. The Committee also questioned Defence if wastewater from the current process was recycled. Defence advised that under present arrangements wastewater goes into the sewerage system.

- *if the current process is unsafe to personnel*

Defence advised that that the occupational health and safety issue regarding the current process is one of people coming into contact with washing compounds.

Committee's Conclusions

32. **Corrosion control of aircraft operating from HMAS *Albatross* involves the manual washing, drying and application of corrosion inhibitors.**

33. **The current process is time consuming, labour intensive and environmentally unfriendly.**

34. **The proposed new facility will provide efficiencies in terms of personnel hours and maintenance and be more environmentally friendly than the current process.**

Aircraft wash facility

35. As part of routine maintenance procedures, aircraft flying operations in a marine environment are washed with fresh water immediately on return to base to remove salt deposits.

36. Defence advised the Committee that all helicopters and fixed wing aircraft stationed at HMAS *Albatross* operate in a marine environment and that squadron personnel are currently required to manually wash both types of aircraft on return from sorties over water. Defence submitted that this is an inefficient and manpower intensive function.

Proposal

37. It is proposed to construct a water deluge spray system similar to that in service at RAAF Base Edinburgh. The system will wash external surfaces of aircraft and collect, separate and recycle the wastewater.

Consideration by the Committee

38. The Committee questioned a number of facets of the proposed work, including:

- *the link, if any, to the proposed helicopter corrosion control facility*

  Defence advised the Committee that the function of the aircraft wash facility is purely to wash salt from aircraft when it returns from a sorties. It is different from the corrosion control facility which is a deliberate process of cleaning aircraft, washing, drying and applying corrosion inhibitors.

savings

The Committee questioned Defence about cost savings in terms of personnel hours and maintenance that have been achieved by the aircraft wash facility at RAAF Base Edinburgh. Defence advised that that facility is working well and saves the Base considerable personnel hours and maintenance time.

The Committee further asked Defence for some approximations of savings which will be made by using automated washes against manual washes. Defence advised that the aircraft wash facility will provide savings of approximately 90-105 personnel hours per month.

Committee's Conclusions

39. **Helicopters and fixed wing aircraft stationed at HMAS *Albatross* operate in a marine environment that require washing on return to base with fresh water to remove salt deposits.**

40. **Squadron personnel are required to manually wash helicopters and fixed wing aircraft on return from sorties over water.**

41. **Based on Defence experience with the aircraft wash facility at RAAF Base Edinburgh, the proposed aircraft wash facility will provide cost savings in terms of personnel hours and maintenance.**

Flight deck procedural training simulators

42. Flight deck procedural training simulators are required to train aircrew and flight deck operators in a controlled environment before practising manoeuvres in an operational role.

43. Defence advised that the existing flight deck training facility provides minimal flight deck realism for a safety training environment and is located inappropriately within the safeguarding arcs of the proposed new helicopter ordnance loading apron.

Proposal

44. It is proposed to construct two flight deck procedural trainers that will simulate each of two different flight decks of the Navy's frigates.

Consideration by Committee

45. The Committee asked Defence why the proposed design could not include facilities such as a crew room and equipment storage could not be accommodated under the raised deck.

46. Defence advised the Committee that facilities such as a crew room and equipment storage could be accommodated under the raised deck provided that these do not interfere with other operational parts of the facility.

Committee's Conclusions

47. **The existing flight deck procedural simulator provides minimal flight deck realism.**

48. **There is a need to train aircrew and flight deck operators in a realistic and controlled environment before practising manoeuvres in an operational role.**

49. **The proposed flight deck procedural simulators will overcome deficiencies with the existing simulator and provide a realistic and controlled training environment.**

Committee's Recommendation

50. **If technically and operationally feasible, facilities such as crew room and equipment storage should be located underneath the raised flight deck in order to reduce costs.**

Visiting military aircraft hardstand

51. Aircraft hardstand areas provide safe ground for the management of aircraft parking and maintenance.

52. Defence advised that with the loss of hardstand area between G and J hangars there is insufficient hardstand to accommodate regular deployments of ADF and allied detachments to HMAS *Albatross*. This has arisen because the area between G and J Hangars has been given up to development as the site for the new squadron complex.

Proposal

53. It is proposed to construct a new hardstand area in the Western Pad area, north of taxiway C and south-west of the new air traffic control tower.

Consideration by the Committee

54. The Committee questioned the validity of the cost estimate provided by Defence in respect of the proposed hardstand. Defence advised that the major cost component was the hardstand which will comprise 325mm rigid pavement concrete with 200mm crushed rock on proof-rolled subgrade.

Committee's Conclusions

55. **The loss of aircraft hardstand area between G and J hangars has resulted in insufficient hardstand area to provide for the safe management of aircraft parking and maintenance.**

56. **The proposed hardstand will overcome existing problems of insufficient hardstand capacity.**

Taxiway bravo extension

57. HMAS *Albatross* has two runways and associated taxiways and hardstands to support flying operations. The taxiways provide access to and from active runways in order that runways can be continually available for aircraft landing and take-off.

58. HMAS *Albatross* has three principal taxiways, namely:

- taxiway A from the runway 26 threshold to the mid-point of runway 03/21;
- taxiway B from the runway 21 threshold to the existing control tower; and
- taxiway C from the runway 08 threshold to the intersection of runways 03/21 and 08/26.

59. Defence advised the Committee that because the taxiways are not interconnected and not of the same length as the associated runways, aircraft are required to taxi along runways in order to prepare for departure. Also, on landing, aircraft are required to taxi along the runway. Defence advised the Committee that this impacts detrimentally on the operational availability of runways and is a significant air safety issue.

Proposal

60. It is proposed to extend taxiway B to the south-west to join runway 08/26.

Consideration by the Committee

61. The Committee questioned Defence why, given the actual square metreage of the taxiway extension is greater than the square metreage of the hardstand

area, that the cost of the hardstand is significantly more than the taxiway extension.

62. Defence advised that the cost difference between the hardstand and the taxiway arises from higher cost pavement type for hardstand, taxiway link to hardstand and increased drainage requirements for hardstand.

Committee's Conclusions

63. **The extension of taxiway B to join runway 08/26 is required to improve the operational availability of runways and air safety.**

64. **The proposed new taxiway will provide the requisite interconnection between taxiway B and runway 08/26 to ensure required operational availability and air safety.**

Perimeter boundary and security fence

65. Defence advised the Committee that the airfield at HMAS *Albatross* requires purpose-designed fencing to ensure appropriate security and restricted area and definition of the boundary of the Commonwealth property. Defence considers that existing fencing is inadequate to provide controlled access of personnel to the airfield and restricted area of the base and to prevent animals accessing the airfield causing interruptions to airfield activities.

66. In relation to the need to define the boundary of the Commonwealth property, Defence advised that the existing fence is inadequate or does not exist on some boundaries.

Proposal

67. It is proposed to construct a security and animal fence around a portion of the airfield boundary and the security area around the operational squadrons. In addition, a new checkpoint at the entrance to the restricted area is proposed. The construction of a low height three-stand wire fence is proposed for areas of the Commonwealth boundary not requiring security fencing.

Consideration by the Committee

68. The Committee asked Defence if there had been security breaches which could be attributed to the state of the fence. Defence advised that there had had been one arrest in recent years but that such incidents were infrequent. In respect to animals encroaching onto the airfield, Defence advised there were a number of occasions in 1999 when local dogs had encroached onto the airfield and that these had taken some time to remove.

Committee's Conclusions

69. **Existing security fencing is inadequate to ensure controlled access of personnel to the airfield and restricted area.**

70. **The proposed perimeter boundary and security fencing will ensure the appropriate security and safety of the airfield and define the Commonwealth property boundary.**

Helicopter underwater escape training simulator

71. RAN Aircrew and regular passengers are required to attend biannual courses in Helicopter Underwater Escape Training (HUET) for each class of helicopter. HUET aims to familiarise personnel with conditions and difficulties of escaping from a helicopter under controlled and safe conditions.

72. Currently, 233 RAN personnel undertake training at a commercial facility in West Sale, Victoria. Defence advised the Committee that the West Sale facility does not provide a realistic simulation of military helicopter types and that the current training arrangement does not allow the flexibility to conduct courses at short notice for small groups.

Proposal

73. It is proposed to construct a HUET facility. Plans of the proposed facilities are at Appendix B, pages B-10 to B-12.

Consideration by the Committee

74. The Committee questioned Defence whether consideration had been given to having the proposed HUET as a joint service facility. Following the public hearing Defence advised that the Army has an ongoing requirement for HUET and that this requirement will increase with the introduction into service of the amphibious landing platform. Following the introduction, Army demand for HUET will be approximately 400 personnel in the Sydney region per annum.

75. Defence advised the Committee that the Army would use the HMAS *Albatross* HUET facility and that there will be a capacity at the facility to meet the projected demand.

76. The Committee also questioned Defence if there will be a need for the HUET to be specially designed or if a module or components were commercially available. Defence advised that they believe there is an off-the-shelf module for the cabin, which they could configure to their needs.

Committee's Conclusions

77. **Aircrew and regular passengers are required to attend biannual courses in helicopter underwater escape training.**

78. **The facility in West Sale, Victoria does not provide the necessary personnel management flexibility and cost effectiveness to conduct courses at short notice and realistic simulation of military helicopter types.**

79. **The proposed helicopter underwater escape training simulator will overcome existing problems and provide improved training.**

Gymnasium

80. The current gymnasium facility at HMAS *Albatross* was constructed in 1948. The facility is used daily by service personnel and authorised civilians. The facility has state of the art fitness training equipment.

81. Defence advised the Committee that the current facility had the following deficiencies:

- the hall layout is an area sufficient only for twenty personnel to exercise;
- there is no storage area for equipment and on loan sports items;
- the ablution facilities are limited to two toilets and showers and are not configured for mixed gender usage;
- the building has low ceilings, exposed columns and inadequate floor strength which make it unsuitable for some physical training activities; and
- it is badly ventilated.

82. Defence also advised the Committee that the gymnasium facilities at HMAS *Albatross* are required to cater for more than one thousand service personnel, 340 Defence civilian and contractor personnel.

Proposal

83. It is proposed to construct a purpose-built gymnasium which will contain a general purpose court area for basketball or volleyball, weight training rooms, administration offices, storage for expedition equipment and loan sporting equipment.

Consideration by the Committee

84. A number of aspects of the need for the proposed work were raised by the Committee with Defence at the public hearing. These included:

- *cost*

  The Committee questioned the cost of the proposed work. Defence advised that the cost represented experience with the construction of gymnasiums similar to that proposed and represents the way that physical training has gone, in that, it provides aerobics and weight training as opposed to a single hall where people did work-outs.

Committee's Conclusions

85. **The existing gymnasium, while containing state of the art equipment, is substandard and inadequate for the purpose of providing all HMAS *Albatross* and eligible personnel with a gymnasium facility.**

86. **There is a need to provide gymnasium facilities at HMAS *Albatross* for the development and maintenance of physical fitness, health training and education.**

Committee's Recommendation

87. **That existing gymnasium equipment and other related items owned by the Commonwealth be used in the new gymnasium facility.**

Helicopter ordnance loading apron

88. HMAS *Albatross* has five Explosive Ordnance Loading Aprons (OLA). An OLA is an area on an airfield where weapons are loaded onto, and unloaded from, aircraft. HMAS *Albatross* OLAs are located on:

- runway 08/26, 400 metres east of threshold 03 (OLA1);
- on the hardstand adjacent to hangar F;
- on the hardstand adjacent to hangars A and B;
- on the northern half of runway 03/21; and
- on taxiway A adjacent hangars G-J,

89. Defence advised the Committee that current arrangements suffer from a number of deficiencies and impose certain operational limitations, including:

- forward firing ordnance cannot be loaded at the OLAs because the requisite 3000 metre clearance within 10 degrees of the line of fire from the loading position;
- the OLAs do not have dedicated security fencing and lighting; and
- runway 08/26 must be closed, and runway 03/21 restricted for civil aircraft in use when OLA 1 is activated.

90. Defence also advised that OLA 1 is the only site authorised for the loading and unloading of high explosive weapons and is licensed for 4,000 kilograms Net Explosive Quantity (NEQ).

Proposal

91. It is proposed to construct one new loading apron, south east of the intersection of runways 08/26 and 03/21 with taxiway access for helicopters and road access from the ordnance storage area. The proposed loading apron will be licensed for a maximum NEQ of 200 kilograms.

Committee's Conclusions

92. **The existing HMAS *Albatross* OLA arrangements are inadequate and impose operational limitations.**

93. **The proposed new loading apron will provide enhanced operational capabilities and ensure the safe loading and unloading of ordnance for helicopters.**

Demolition and relocation of facilities

94. Defence advised that with the completion of new facilities the demolition of the old facilities is necessary to prevent the drift of activities into redundant buildings in poor conditions. Facilities to be demolished include:

- the existing flight deck procedural facility;
- the existing gymnasium;
- the existing air traffic control tower;
- G hangar (existing fire station); and
- remaining explosives storage buildings.

95. Defence also advised that the existing Aero club and ancillary buildings, which are located adjacent to West Pad, may need to be relocated and trees removed. The rationale give by defence for the possible relocation is to ensure optimum visual clearance from the new air traffic tower.

96. The Committee questioned Defence why the relocation of the Aero club is part of the Stage 2 redevelopment and if it included building a new club house. Defence advised that as part of the Stage 1 redevelopment it had been agreed that if the Aero Club were to be demolished or moved, Defence would have some responsibility to relocate it so that it could be reused.

Committee's Conclusions

97. **The demolition of the old facilities is necessary to facilitate completion of Stage 1 and 2 redevelopment projects.**

Committee's Recommendation

98. **The cost of providing a new Aero Club building should not be included in the scope of the proposed work.**

Engineering services

99. Engineering services for each of the facilities are included in the design of the appropriate facility. Defence advised the Committee that additional electrical services will be provided to supplement the existing HMAS *Albatross* infrastructure and support the new facilities under the Stage 2 redevelopment.

100. In addition, Defence advised the Committee that the existing fire protection services infrastructure of HMAS *Albatross* will, where necessary, be upgraded to include new cabling.

101. The Committee noted that in the confidential cost estimate provided to the Committee that 'Engineering Services' is a single line item and the most significant item, but that no breakdown of engineering services costs for each proposed facility was provided. Defence advised the Committee that, in order of cost, engineering services will comprise:

- base area stormwater and drainage upgrade;
- sewerage plant and distribution upgrade;
- electrical infrastructure upgrade; and
- fire panel area network system.

Committee's Conclusions

102. **Engineering services for proposed facilities are integral to the efficient functioning of each facility and HMAS *Albatross*.**

DESIGN

Standards

103. Where appropriate, the design of new facilities will conform to the relevant provision of:

- the Building Code of Australia (BCA);
- relevant current Australian Standards and Codes;
- the Defence Fire Protection Engineering Manual (MFPE);
- Environmental Protection Act and Regulations;
- Workplace Health and Safety Act and Regulations; and
- Commonwealth Office Accommodation Guidelines.

Principles

104. The design principles adopted for the proposed facilities incorporate the following:

- the provision of austere, cost effective and utilitarian facilities of energy efficient design suitable for the rigours of the climate and marine environment, and of a style compatible with surrounding facilities;
- adoption, where possible, of conventional construction techniques and materials, in particular those commonly used by the construction industry in the area;
- use of durable materials that combine long life with minimum maintenance;
- recognition of limitations of land availability, security requirements, functional relationships with existing facilities, and operational determinants; and
- recognition of occupational health and safety aspects impacting on the well being of personnel using the facilities.

Materials

105. The materials proposed for the new buildings will be selected for their economy, function, acoustic properties, low maintenance and compatibility with other HMAS *Albatross* facilities. Materials for the new helicopter underwater escape simulator, gymnasium and helicopter wash buildings, and for the office, administration and maintenance components of other buildings, will generally be face brick, concrete floors, steel tray roofs,

acoustic tile ceilings and aluminium window frames. The hardstand, taxiway, ordnance loading apron and flight deck simulators will be purpose designed

Structure

106. Each building structure will be designed to provide a functional, low maintenance, economical solution related to each particular site. The new buildings will be steel framed structures, with brick walls and either steel or timber roof trusses. Maintenance and workshop components will be constructed of masonry walls with concrete floors. The ordnance loading apron, and taxi way will be pavement designed.

External works

107. The proposed building sites are generally flat. All excavated material will be retained on site. No trees will be removed. Some modifications and extensions to the existing paved road network will be required, especially for the new Flight Deck Simulator.

Acoustics

108. High levels of noise from aircraft requires particular attention to be paid to acoustic design requirements. All buildings will be designed to achieve noise reduction from internal and external noise sources, in accordance with the relevant Australian Standards. Materials and jointing methods will be chosen for their ability to achieve minimisation of sound transmission and maximisation of sound absorption.

Landscaping

109. The additional facilities proposed for the Stage 2 works will have little impact on the landscaping of the Base. Where possible, each of the new building sites will be graded and grassed to enhance the environment.

Occupational health and safety

110. New works will be designed and constructed to meet relevant occupational health and safety requirements and codes of practice. Any asbestos material located in existing buildings proposed for demolition as part of this project will be removed in accordance with prescribed practices.

Provisions for people with disabilities

111. Access and toilets suitable for disabled personnel will be provided.

SYSTEMS

Fire protection

112. The principles outlined below will be adopted in the design of the fire protection systems:

- as a minimum, all construction and fire protection requirements will be in accordance with the provisions of the Building Code of Australia (BCA), the Defence Manual of Fire Protection Engineering (MFPE) and all other applicable Codes and Standards. MFPE details Defence fire protection policy for asset and building function protection. The levels of fire protection specified in MFPE are above BCA requirements and have been determined by a risk assessment and risk management approach to fire protection;
- Defence will require certification from a suitably qualified certifier, that the design and construction meet the requirements of the BCA, MFPE, relevant Codes and Standards and any additional State, Local Government and Defence requirements;
- any recommended departures from the BCA requirements in relation to the project will be technically assessed by Defence specialist fire protection staff; and
- successful tenderers will be required to produce a Quality Assurance Plan to clearly demonstrate how BCA, Australian Standards and any additional Defence requirements in relation to fire protection / fire safety, will be met and the required standards for construction / installation maintained.

Electrical

113. Electric power will be provided from the established in-ground distribution network. Standard 240 volt power outlets will be provided to suit specific requirements.

114. General and supplementary lighting will be provided in accordance with appropriate Australian standards. Switching patterns and dimmers will be arranged to utilise available daylight. External lighting will be provided at all entrances and exists in conformity with SECMAN 7 and relevant Australian Standards. Natural light will be introduced from suitably installed and positioned windows and skylights.

SHOALHAVEN CITY COUNCIL

Support for the project

115. Shoalhaven City Council indicated strong support for the proposed development. The Shoalhaven Shire is experiencing rapid population growth with a population of approximately 85,000. The Council advised the Committee that the Shire's population is currently growing at the rate of 1,700 to 2,000 people per annum and that the total population would probably reach 120,000 by the year 2020.

116. Defence is one of the largest wages and salary sectors in the Shire. The development of HMAS *Albatross* and a number of other projects under consideration and development are regarded as keys to future economic growth in the area. The Council advised the Committee that the Stage 2 redevelopment project would:

- secure and build upon the works done in the Stage 1 redevelopment as well as the existing defence infrastructure within the Shire;
- provide construction opportunities; and
- engender confidence in the local economy.

Employment opportunities

117. The Committee also took the opportunity to raise with the Council the question of employment derived from Defence. The Council advised the Committee that the Defence industry has approximately 1,400 service members posted to the Nowra area and provides considerable opportunities for small and large businesses in the Shire.

118. While the Council was unable to provide the Committee with an accurate figure of employment derived to date from the Stage 1 redevelopment, it provided the Committee with an estimate of between 270 and 360 people.

119. Defence advised the Committee that the peak employment workload for the Stage 1 redevelopment did not reach the estimated 200 personnel. It peaked at 185 and is currently between 140-150 personnel.

120. The estimate of construction manpower for the Stage 2 redevelopment is a peak workforce of 150 personnel, with an average of between 110-120 personnel.

CONSULTATION

121. Defence advised that the following authorities were consulted or advised about the project during the planning stages:

- NSW National Parks & Wildlife Service;
- NSW Department of Land & Water Conservation;
- NSW Department of Urban Affairs & Planning;
- Shoalhaven City Council;
- NSW Environment Protection Authority; and
- Integral Energy.

ENVIRONMENT AND HERITAGE

Impact assessments by Defence

122. Defence advised the Committee that the environmental assessment, undertaken as part of master planning, indicated that there will be no significant environmental impacts resulting from the proposal.

123. A number of matters, relating to possible environmental impacts from the proposal and from the Base were raised in submissions to the Committee by Commonwealth and State agencies and these, and the Defence responses, are summarised in the following paragraphs.

NSW National Parks and Wildlife Service

124. The National Parks and Wildlife Service (NPWS), advised that the erection of a man proof fence around the perimeter of the base could result in the clearance of significant vegetation and animal habitat. The NPWS suggested that the fence should avoid dissecting a small woodland area on the south-west section of the base, where it abuts crown land. The Committee inspected this woodland and was able to see that the proposed fence line will not dissect the woodland.

NSW Environment Protection Authority

125. The NSW Environment Protection Authority (EPA), agreed in principle with Defence's proposal to collect, treat and reuse the wastewater generated by the Helicopter Corrosion Control Facility and Aircraft Wash Facility.

126. The EPA advised that the measures for managing the water generated by the Helicopter Underwater Escape Training Simulator did not appear to have been provided in the Statement of Evidence to the Committee by Defence.

The EPA recommended that the following hierarchy be applied in relation to the wastewater:

- wastewater minimisation;
- capture and reuse of wastewater, including treatment and reuse within the simulator or by irrigation on grassed areas;
- discharge to wastewater treatment plant; or
- treatment and discharge to stormwater in a manner that does not cause pollution of waters.

127. The Committee was also apprised by the EPA of concerns relating to the adequacy of the on-site sewage treatment plant at HMAS *Albatross*. Given the sensitivity of the Currumbene Creek and Jervis Bay catchment, the EPA recommended that the system be checked and where necessary improved to ensure it is being operated and maintained in a proper and efficient manner at all times. The EPA also recommended that all wastewater management systems installed at HMAS *Albatross* be designed, operated and maintained in accordance with the following guidelines:

- Environmental Guidelines for Industry, "*The Utilisation of Treated Effluent by Irrigation*" (February 1995 or revised version); and
- Environment and Health Protection Guideline "*On-site Sewage Management for Single Households*" (Department of Local Government et al, February 1998).

128. The Defence response to this suggestion was to note the EPA's comments and advise that cognisance of State environmental management planning and guidelines will be detailed in all delivery contracts, particularly relating to the treatment of sewage, and that the impact of future development will be investigated and recorded within the guidelines of the *Environment Protection (Impact of Proposals) Act 1974*.

Committee's Recommendation

129. **That the on-site sewage treatment plant at HMAS *Albatross* be checked on a regular basis, and if necessary improved, to ensure it is being operated and maintained in a manner consistent with State and local government requirements.**

Heritage

130. Defence advised that there are no known Aboriginal sites or sites of heritage significance within the present boundaries of HMAS *Albatross*.

Aircraft noise

131. The Committee questioned the Shoalhaven Shire Council about the impact of aircraft noise on areas surrounding HMAS *Albatross*. The Council advised the Committee that the population of the Shire is accustomed to noise generated by flying operations. The Committee also questioned the Council if the number of complaints about aircraft noise have been increasing. The Council advised that it did not receive many complaints and that any complaints it does receive are mainly from residents around the HMAS *Albatross*.

132. The Committee also questioned Defence about the number of complaints relating to aircraft noise and was advised that complaints were infrequent and were probably less than they were in previous years.

Road traffic

133. Defence believes that the project, when completed, will have a limited impact on the local community. Although more personnel will train and operate from HMAS *Albatross* most of their immediate needs will be provided on-Base by the RAN. There will be very little change to traffic patterns.

COST AND PROGRAM

Cost

134. The out-turn cost of this project is $41.0 million which includes construction costs, professional fees and charges, furniture and fittings, construction contingency and a predicted indexation adjustment over the construction period.

Program

135. Subject to Parliamentary approval, the managing contractor involved in Stage 1 will be engaged and tenders for construction are planned to be called progressively. The elements comprising Stage 2 are scheduled for completion within twenty-two months of Parliamentary approval.

FUTURE WORKS

136. Defence advised the Committee that approval has been given to a proposal for relocation from Sydney of 170 Defence personnel in the naval aviation logistics management squadron to a new 2,280 square metre facility within the base.

137. Defence also advised that HMAS *Albatross* is being considered, along with other options, for the relocation of part or all of the functions of the ADF helicopter school at Fairbairn in Canberra.

Committee's Recommendation

138. **The Committee recommends the proposed HMAS *Albatross* Stage 2 redevelopment at an out turn cost of $41.0 million.**

CONCLUSIONS AND RECOMMENDATIONS

139. The Committee's conclusions and recommendations and the paragraphs in which they appear in the report are set out below:

1. **The existing arrester gear on runway 03/21 is a portable system which requires manual rigging before use in emergencies and manual de-rigging to allow normal runway operations.**

2. **The proposed replacement of the BAK 12 arrestor system on runway 03/21 with a BAK 14 system will overcome the potential in emergencies of having to route military aircraft in distress to civilian airfields and produce savings in manpower.**

3. **Corrosion control of aircraft operating from HMAS *Albatross* involves the manual washing, drying and application of corrosion inhibitors.**

4. **The current process is time consuming, labour intensive and environmentally unfriendly.**

5. **The proposed new facility will provide efficiencies in terms of personnel hours and maintenance and be more environmentally friendly than the current process.**

6. **Helicopters and fixed wing aircraft stationed at HMAS *Albatross* operate in a marine environment that require washing on return to base with fresh water to remove salt deposits.**

7. **Squadron personnel are required to manually wash helicopters and fixed wing aircraft on return from sorties over water.**

8. **Based on Defence experience with the aircraft wash facility at RAAF Base Edinburgh, the proposed aircraft wash facility will provide cost savings in terms of personnel hours and maintenance.**

9. **The existing flight deck procedural simulator provides minimal flight deck realism.**

10. **There is a need to train aircrew and flight deck operators in a realistic and controlled environment before practising manoeuvres in an operational role.**

11. The proposed flight deck procedural simulators will overcome deficiencies with the existing simulator and provide a realistic and controlled training environment.

12. If technically and operationally feasible, facilities such as crew room and equipment storage should be located underneath the raised flight deck in order to reduce costs.

13. The loss of aircraft hardstand area between G and J hangars has resulted in insufficient hardstand area to provide for the safe management of aircraft parking and maintenance.

14. The proposed hardstand will overcome existing problems of insufficient hardstand capacity.

15. The extension of taxiway B to join runway 08/26 is required to improve the operational availability of runways and air safety.

16. The proposed new taxiway will provide the requisite interconnection between taxiway B and runway 08/26 to ensure required operational availability and air safety.

17. Existing security fencing is inadequate to ensure controlled access of personnel to the airfield and restricted area.

18. The proposed perimeter boundary and security fencing will ensure the appropriate security and safety of the airfield and define the Commonwealth property boundary.

19. Aircrew and regular passengers are required to attend biannual courses in helicopter underwater escape training.

20. The facility in West Sale, Victoria does not provide the necessary personnel management flexibility and cost effectiveness to conduct courses at short notice and realistic simulation of military helicopter types.

21. The proposed helicopter underwater escape training simulator will overcome existing problems and provide improved training.

22. The existing gymnasium, while containing state of the art equipment, is substandard and inadequate for the purpose of providing all HMAS *Albatross* and eligible personnel with a gymnasium facility.

23. There is a need to provide gymnasium facilities at HMAS *Albatross* for the development and maintenance of physical fitness, health training and education.

24. That existing gymnasium equipment and other related items owned by the Commonwealth be used in the new gymnasium facility.

25. The existing HMAS *Albatross* OLA arrangements are inadequate and impose operational limitations.

26. The proposed new loading apron will provide enhanced operational capabilities and ensure the safe loading and unloading of ordnance for helicopters.

27. The demolition of the old facilities is necessary to facilitate completion of Stage 1 and 2 redevelopment projects.

28. The cost of providing a new Aero Club building should not be included in the scope of the proposed work.

29. Engineering services for proposed facilities are integral to the efficient functioning of each facility and HMAS *Albatross*.

30. That the on-site sewage treatment plant at HMAS *Albatross* be checked on a regular basis, and if necessary improved, to ensure it is being operated and maintained in a manner consistent with State and local government requirements.

31. The Committee recommends the proposed HMAS *Albatross* Stage 2 redevelopment at an out turn cost of $41.0 million.

Hon. Judi Moylan MP
Chair

6 April 2000

A

Appendix A—Witnesses

COLE, Captain Geoff - Commanding Officer HMAS *Albatross*

COX, Commodore Tim - Director General, Maritime Development Capability

KELLY, Brigadier Garry - Director General, Project Delivery

GASH, Mrs Joanna MP - Federal Member for Gilmore

LOWSON, Mr Andrew - Project Director

PULLEN, Mr Greg - Economic Development Officer, Shoalhaven City Council

B

Appendix B—Associated Drawings