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THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA
PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

REPORT

relating to the

DEVELOPMENT OF NEW UTILITY HELICOPTER FACILITIES,
PHASE 2, AT RAAF BASE TOWNSVILLE AND OAKY ARMY AIRFIELD, QLD

(Eighth Report of 1988)

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MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE
ON PUBLIC WORKS

(Twenty-Ninth Committee)

Mr Colin Hollis MP (Chairman)

Mr Percival Clarence Millar MP (Vice-Chairman)

Senate

Senator Bryant Robert Burns
Senator John Robert Devereux
Senator Dr Glenister Sheil

House of Representatives

Mr Maxwell Arthur Burr MP
Mr George Gear MP
Mr Robert George Halverson OBE MP
Mr John Graham Mountford MP

EXTRACT FROM THE VOTES AND PROCEEDINGS
OF THE HOUSE OF REPRESENTATIVES

NO. 50 DATED THURSDAY 14 APRIL 1988

PUBLIC WORKS COMMITTEE - REFERENCE OF WORK - UTILITY HELICOPTER FACILITIES, PHASE 2, RAAF BASE TOWNSVILLE AND OKEY ARMY AIRFIELD, QLD: Mr West (Minister for Administrative Services), 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: Development of New Utility Helicopter Facilities, Phase 2, at RAAF Base Townsville and Oakey Army Airfield, Qld.

Mr West presented plans in connection with the proposed work.

Debate ensued.

Question - put and passed.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

**NEW UTILITY HELICOPTER FACILITIES, PHASE 2, AT RAAF BASE
TOWNSVILLE AND OKEY ARMY AIRFIELD, QUEENSLAND**

By resolution on 14 April 1988 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report the proposal for the development of facilities for the second phase of delivery of the new utility Black Hawk helicopter at RAAF Base Townsville and Oakey Army Airfield, Queensland.

THE REFERENCE

1 The works proposed in the reference consist of:

- upgrading, extension and provision of new facilities at RAAF Base Townsville for the new 5 Aviation Regiment, equipped with Black Hawk helicopters, which will provide tactical air support to combat elements of the Operational Deployment Force and the associated on-base relocation of No 35 Squadron fixed wing element. The proposal provides for operational, technical and administrative facilities, new single living-in accommodation and engineering services; and
- upgrading, extension and provision of new facilities at Oakey Army Airfield, 150 km west of Brisbane, for Black Hawk operational training for aircrew and maintenance personnel.

2 The estimated cost of the proposed works when referred to the Committee in April 1988 was \$24.2m at October 1987 prices, comprising \$19.2m at RAAF Base Townsville and \$5m at Oakey Army Airfield.

THE COMMITTEE'S INVESTIGATION

3 The Committee received written submissions from:

- Department of Defence
- Australian Construction Services
- Defence Housing Authority
- Council of the City of Townsville
- Jondaryan Shire Council
- City of Thuringowa
- Premier's Department (Queensland)
- Tubelok Pty Ltd
- Australian Heritage Commission.

4 Evidence was taken from representatives of the Department of Defence (Defence), Australian Construction Services (ACS), Defence Housing Authority (DHA) and the Council of the City of Townsville at a public hearing in Townsville on 16 June 1988. A list of witnesses who appeared at the public hearing is at Appendix A. The Committee's proceedings will be printed as Minutes of Evidence.

5 Prior to the public hearing the Committee inspected the existing facilities at Oakey Army Airfield and RAAF Base Townsville, including progress with Phase 1 works on the base and married quarters located in the city of Townsville.

BACKGROUND

Acquisition of the Black Hawk Helicopter and its Transfer from RAAF to Army

6 The Department of Defence is purchasing 39 Sikorsky S70-A-9 Black Hawk battlefield helicopters to replace its existing Iroquois helicopter fleet. The Black Hawk is being acquired to meet specific Army battlefield functions. Unlike all other multi-role aircraft, the Black Hawk will operate solely within the ground warfare environment.

7 The Black Hawk helicopters are being provided by Hawker de Havilland USA with assemblage and testing by Hawker de Havilland in Australia. Acquisition of the helicopters is planned to occur in two phases:

Phase	Number of aircraft	In-service date	Project cost estimate
1	14	Jan 88-July 89	\$280m
2	25	July 89-Sept 90	\$500m

There has been a delay in the delivery of the Black Hawk helicopter but this has had no impact on the construction of the Phase 1 works. No slippage is anticipated in the Phase 2 aircraft delivery.

8 In November 1986 the Minister for Defence announced that battlefield helicopters would be transferred from the Air Force to the Army over the next five years. The integration of helicopters into the Army reflects the Government's emphasis on mobility as the key requirement for Australia's ground forces.

RAAF Base Townsville

9 RAAF Base Townsville occupies an area of some 750 hectares and is located approximately five km west of Townsville city centre in the suburb of Garbutt. It is bounded on the south by the Bruce Highway and industrial/residential estates, on the west by a future industrial development site and the Town Common, on the north by the Town Common, and on the east by special purpose and residential land. Further details on the location and setting of the base are provided at Appendix C.

10 There has been an Air Force presence in Townsville since the late 1930s and it has been the Northern Area Headquarters (later the Headquarters North Eastern Area) since the Second World War. Existing facilities on the base are a mixture of buildings dating from the War and some more modern buildings.

11 RAAF Base Townsville is the only permanent Air Force establishment in northern Queensland. The main functions of the base are to provide:

- tactical air support to Army combat elements of the Operational Deployment Force
- combat survival training
- air traffic control services
- air/sea search and rescue about the airfield
- support for the deployed elements of the RAAF's Strike and Tactical Fighter Forces
- staging services for maritime and transport aircraft.

12 The airfield is used for both civilian and military aircraft with Defence (RAAF) as the principal and the Department of Transport and Communications as tenant.

13 The following units are currently located or planned to be located on the base:

- No 9 Squadron
- No 35 Squadron
- Tactical Transport Group Headquarters
- Base Support Wing
- No 27 (RAAF Active Reserve) Squadron.

14 As previously outlined the acquisition of the Black Hawk helicopters is planned to occur in two phases. The first phase provided for the re-equipment of a helicopter squadron (No 9 Squadron) with 14 Black Hawk helicopters. Phase 2 provides 16 aircraft for the balance of the Company Group Lift at Townsville as well as six aircraft for training purposes to be located at Oakey Army Airfield and three attrition aircraft.

15 No 9 Squadron equipped with 14 Black Hawk helicopters will relocate to Townsville in early 1989 and be accommodated in the new facilities which are being constructed as part of the Phase 1 works.

16 The Army will raise a unit known as 5 Aviation Regiment at Townsville which will comprise:

- Regimental Headquarters
- Headquarters Squadron
- A Squadron (ex-No 9 Squadron)
- B Squadron
- Regimental Workshops.

The embryonic B Squadron will initially be the rotary wing element of the RAAF's No 35 Squadron.

17 In Phase 2, delivery of Black Hawk helicopters is planned to commence in July 1989 and be completed in September 1990. During this period No 35 Squadron will continue to operate Iroquois in support of the Operational Defence Force, albeit at a reduced level. B Squadron 5 Aviation Regiment is intended to operate from the existing No 35 Squadron facilities. These facilities need to be upgraded/converted for support of the Black Hawk helicopters. During these works the No 35 Squadron rotary wing element will need to be relocated into temporary accommodation and the No 35 Squadron Fixed Wing element also will need to be relocated. Following completion of the transfer of the battlefield helicopters to the Army by 1992, the fixed wing element of No 35 Squadron will be a dedicated RAAF Caribou Flight/Squadron, completely separate from 5 Aviation Regiment.

Progress with Phase 1 Works at RAAF Base Townsville

18 In December 1986 the Public Works Committee considered the proposal for construction, at RAAF Base Townsville, of facilities for No 9 Squadron which is to be re-equipped with the 14 Sikorsky Black Hawk helicopters. The Committee recommended the construction of the on-base helicopter facilities (Second Report of 1987) and after taking additional evidence presented a supplementary report which recommended the construction of 15 new married quarters on existing Defence owned land in the city of

Townsville (Fifth Report of 1987). Following additional detailed investigations by the Department of Defence and the Department of Administrative Services, the latter recommendation was rejected by the Government in favour of constructing the 15 new houses on new blocks of land in Townsville, to be acquired by the Department of Defence.

19 Construction of Phase 1 work has commenced and completion is programmed for October 1988. During the site inspections at Townsville the Committee reviewed the progress of the Phase 1 facilities on the base and the new houses. At the public hearing, Defence and ACS informed the Committee that Phase 1 facilities are within cost and will be completed on time. The Committee is satisfied with the progress of the Phase 1 works.

Oakey Army Airfield

20 Oakey Army Airfield occupies an area of approximately 220 hectares and is located adjacent to the township of Oakey on the Darling Downs approximately 150 km west of Brisbane. The airfield is surrounded by privately owned rural holdings consisting of open or lightly timbered areas of undulating farming country. Further details on the location and plan of the airfield are provided at Appendix C.

21 The airfield was originally a Second World War fighter base and was occupied by the Army in 1969. Some of the buildings date from that time but the majority were constructed during 1971-72. The Army Aviation Centre is a focal point for Army Aviation activities. All forms of flying activity are conducted at Oakey, particularly instrument flying and circuit training.

22 Oakey Army Airfield is a joint-user aerodrome with Defence (Army) as the principal and the Department of Transport and Communications as the tenant.

23 The following units are currently located on the base and form the Army Aviation Centre:

- Headquarters Army Aviation Centre
- 1st Aviation Regiment (which includes 1st Aviation Regiment Workshop, 173rd General Support Squadron, 173rd General Support Squadron Workshop)
- School of Army Aviation
- 5th Base Workshop Battalion
- Base Support Unit Oakey.

24 The present establishment of the Centre is 710 Army personnel and 45 civilian staff. The working population on the base will increase by 45 Army personnel when Black Hawk training is located at Oakey.

THE NEED

25 Tactical air support to combat elements of the Operational Deployment Force, which is based at Lavarack Barracks Townsville, will be provided by 5 Aviation Regiment at Townsville. Once the helicopters are operational the Army will conduct Black Hawk conversion training and loadmaster courses at the School of Army Aviation at Oakey.

26 At both bases there is a need to upgrade and extend operational, technical, support and administrative facilities to accommodate both new personnel and equipment, and the relocation of existing units. At Townsville there is also a need to provide new living-in and married accommodation. The existing living-in and married quarters at Oakey are adequate for the increased personnel associated with the helicopters.

RAAF Base Townsville

5 Aviation Regiment Facilities

27 There is a facilities shortfall in the existing No 35 Squadron complex, which will support elements of 5 Aviation

Regiment. Permanent facilities are required for:

- command and control, administration and aircrew accommodation
- maintenance and technical support
- supply and storage of maintenance spares and deployment
- helicopter parking and movements
- vehicle maintenance and storage
- domestic accommodation for 5 Aviation Regiment personnel and their families.

No 35 Squadron

28 Technical and administrative facilities for displaced Caribou aircraft of No 35 Squadron will be provided through conversion and upgrading of existing facilities at RAAF Base Townsville. No 35 Squadron also uses Iroquois aircraft, which will be temporarily accommodated pending completion of 5 Aviation Regiment conversion works. Facilities are required for:

- command and control, administration and aircrew accommodation
- maintenance and technical support
- supply and storage of maintenance spares and deployment equipment.

29 The aggregate increase in personnel is expected to be approximately 459 personnel, necessitating additional living-in accommodation, married quarters and an extended routine medical/dental facility.

Committee's Conclusion

30 There is a need for upgrading, extension and provision of new operational and support facilities at RAAF Base Townsville to support Phase 2 delivery of the Black Hawk helicopter and the on-base relocation of No 35 Squadron fixed wing element.

Oakey Army Airfield

31 Additional permanent training and intermediate level maintenance facilities are required to support the introduction of Black Hawk operational conversion training in 1990. Six Black Hawk helicopters will be used for training purposes.

Location Options

32 In response to the stated need the Department of Defence has undertaken a detailed investigation of options for the location of Black Hawk conversion training. All of the Australian Defence Force main bases for helicopter operations were considered as possible locations, that is:

- Naval Air Station Nowra
- RAAF Base Fairbairn
- RAAF Base Amberley
- RAAF Base Townsville
- Army Airfield Oakey.

The preferred option is Oakey Army Airfield.

33 It is Defence policy to have a centralised training organisation for each corps, not unit. This policy results in a significant reduction in costs compared with decentralised training, which would require additional facilities, supporting equipment, personnel and travel. Oakey Aviation Centre fulfils this requirement.

34 Infrastructure to support the introduction of Black Hawk conversion training exists at the Army Aviation Centre at Oakey; however, additional permanent facilities are required to meet the increase in instruction time, equipment and 45 new personnel as a result of the commencement of conversion training in 1990.

35 Oakey has all the necessary instructor skills, training aids and a favourable climatic and air traffic control situation.

These factors result in greater efficiency and productivity of training time.

36 None of the other options offers any significant advantages when compared with the Oakey site and all had distinct disadvantages. All the sites would require additional operational, technical and/or living-in accommodation or unduly hamper other functions carried out at a particular base.

RAAF Base Townsville

37 The location of both training and operational roles at Townsville in particular was at first an attractive option. However, Townsville is an international airport and ground space is at a premium, particularly in the vicinity of 5 Aviation Regiment facilities and it is a strategic base for operational and training deployments which use live ordnance. In addition, there is no significant cost saving over location at Oakey.

38 Location at Townsville would be contrary to established Army policy of conducting individual training in specialised schools and long RAAF experience has shown that collocated conversion and operational training arrangements militate against the proper conduct of conversion courses because it is often attractive to allocate aircraft priority to other types of training and to operational tasks.

Naval Air Station Nowra

39 The Navy has a critical shortage of facilities and training airspace at Nowra. Furthermore, Black Hawk and Seahawk helicopter operational conversions are quite different.

RAAF Base Fairbairn

40 Fairbairn would require new Black Hawk conversion facilities on a similar scale to Oakey as well as additional living-in accommodation. In addition, facilities for training at

Fairbairn will be fully utilised for the foreseeable future and space for expansion is limited.

RAAF Base Amberley

41 A new site and totally new facilities would need to be built at Amberley to accommodate Black Hawk conversion training.

42 Consequently, Defence advised the Committee that the establishment of Black Hawk conversion training at Oakey is the most effective means of meeting operational requirements while making the most effective use of available resources.

43 The conduct of Black Hawk operational conversion training at Oakey requires permanent facilities for:

- aircrew and ground crew training
- maintenance personnel training
- intermediate level maintenance and technical support of aircraft and components
- helicopter movements and parking.

Committee's Conclusion

44 Oakey Army Airfield is the most suitable site for development of Black Hawk operational training for aircrew and maintenance personnel. There is a need for upgrading, extension and provision of new operational and support facilities at Oakey to support the introduction of Black Hawk training functions.

THE PROPOSAL

45 To fulfil the need for additional operational and support facilities at RAAF Base Townsville to accommodate the second phase of delivery of Black Hawk helicopters and to accommodate Black Hawk operational training at Oakey Army Aviation Centre, selected facilities at both bases will be upgraded and extended and in some cases new facilities provided.

46 The works proposed accord with the Master Zone Plans for the bases, do not alter existing site functional planning, are located within the existing boundaries of the bases, meet the 1982 interim Service Scales and Standards and comply with all relevant State and local government legislation. The works also form part of the Government's approved Five Year Defence Plan.

RAAF Base Townsville

47 The proposed works at RAAF Base Townsville consist of:

- site preparation and the upgrading of engineering services
- works associated with 5 Aviation Regiment comprising:
 - upgrading of general Q store facilities
 - extension and upgrading of flight line facilities
 - extension of hangar to accommodate Black Hawk helicopters
 - extension and upgrading of building for technical support facilities
 - upgrading of building for headquarters facilities
 - a new fuel tank testing and maintenance building
 - temporary field training facilities
 - extension and overlay of the No 35 Squadron apron and provision of a link to the existing taxiway
- works associated with relocation of No 35 Squadron comprising:
 - upgrading building for technical support facilities
 - extension of Hangar 75 to accommodate Caribou aircraft, workshop and flight line facilities
 - upgrading building for headquarters facilities
 - provision of a temporary flight line facility

- works associated with vehicle storage and maintenance comprising:
 - upgrading building for vehicle maintenance facilities
 - provision of a secure storage area in building 202
 - upgrading and extension of building for motor transport facilities
 - upgrading compound for secure parking and vehicle washing
 - upgrading and extension of building for tanker driver facilities
- new living-in accommodation for 4 senior officers, 20 junior officers and 224 other ranks
- extension of the existing medical/dental facility
- new storage building for furniture and deployment stores
- upgrading of security.

Operational, Technical and Administrative Facilities

48 Existing facilities on the eastern side of the base will be upgraded and extended to provide the increased capacity required for the relocation of No 35 Squadron. Existing vehicle maintenance, storage and health facilities will be extended and upgraded to make them suitable for the additional functions envisaged.

49 Facilities on the western side of the base, currently occupied by No 35 Squadron, will be upgraded and extended to provide for elements of 5 Aviation Regiment. The existing apron will be extended to allow parking of the additional helicopters. These facilities will compliment the Phase 1 works for the Regiment.

Living-in Accommodation

50 The single accommodation requirement has been assessed at 248 (4 senior officer, 20 junior officer and 224 other ranks). New living-in accommodation blocks for officers and other ranks will be sited in existing accommodation areas and will be compatible with existing accommodation with respect to design, construction methods and finishes. The accommodation will be two-storey construction blocks for other ranks and one-storey for officers.

51 Defence believes that personnel morale and wastage levels will improve with the provision of good facilities. Consequently, Defence has concentrated on improving accommodation both on and off-base. In particular there is a need to provide single room accommodation for other ranks.

52 In addition, provision has been made for air-conditioning and acoustic treatment to the living-in blocks to overcome problems associated with aircraft and vehicular noise.

Oakey Army Airfield

53 The proposed works at Oakey consist of:

- site preparation and the upgrading of engineering services
- upgrading and extension of maintenance hangar
- extension of buildings for maintenance personnel training facilities
- extension of building for aircrew training facilities
- upgrading and extension of technical support and storage facilities
- enclosed parking shelter for six Black Hawk helicopters
- extension of the apron
- upgrading of security.

54 This proposal is the initial stage of a general upgrade of of the airfield. The Master Plan for the base currently is being modified to take these future developments into consideration.

Committee's Conclusion

55 The Committee concludes that the proposed works as designed will fulfil the needs as outlined at both RAAF Base Townsville and Oakey Army Airfield, Queensland.

BUILDING DESIGN

56 In evidence to the Committee ACS stated that upgrading and extensions will match existing facilities and new facilities have been designed so that their scale, materials and finishes will be compatible with their surroundings. The various buildings will express the utilitarian nature of their functions which range from aircraft storage and workshop activities to administrative functions.

57 The new living-in accommodation blocks have been designed so that their height, size and detailing will be compatible with existing on-base accommodation.

58 Tubelok Pty Ltd made a submission to the Committee regarding the use of their system for large span structures such as aircraft hangars in the proposed Phase 2 works.

59 On the basis of a preliminary assessment of the Tubelok system ACS told the Committee that the system is potentially a cost-effective solution for the proposed extension of the hangar and construction of the enclosed aircraft parking shelter at Oakey. ACS said that subject to a more detailed evaluation of the Tubelok system and its capability of achieving the required strength, serviceability, long-term behaviour and performance criteria, the application of the system to the Oakey buildings and other suitable future projects would be considered on its financial merits in a competitive tendering situation.

MARRIED ACCOMMODATION AT RAAF BASE TOWNSVILLE

60 Although not part of this reference, the Department of Defence submission also referred to the need for additional married accommodation at Townsville for married personnel and their families. At Oakey Army Airfield existing married accommodation is adequate for the increased personnel numbers associated with Black Hawk.

61 In its submission Defence advised the Committee that currently RAAF Base Townsville administers 338 married quarters comprising 294 houses under the provision of Commonwealth/State Housing Agreement and 44 houses owned by Defence.

62 In Phase 1 Defence assessed a need for 113 additional houses due to the relocation of No 9 Squadron. This requirement would be partly met in the first instance by transferring 42 surplus Army houses to the RAAF. In order to partially rectify the imbalance between houses available and rank structures, it was proposed to construct 15 new houses for more senior ranks and to provide the balance of 56 houses later. These houses, not required until 1987-88, will be provided using one or a combination of alternative delivery methods including new construction, direct purchase, leasing, and/or transfer from Army.

63 The figures for Phase 1 housing were based on data provided by Defence (RAAF). With the transfer of the Black Hawk helicopter from RAAF to Army the figures for Phase 2 housing are now based on revised data provided by Defence (Army). To house the increased numbers of married personnel associated with the basing of 5 Aviation Regiment at Townsville, Defence told the Committee that 135 married quarters are required and that those quarters are to be provided by the Defence Housing Authority (DHA). Those 135 houses include the balance of the housing need identified in Phase 1 - that is, 56 houses. Although Defence has identified a need for 135 houses DHA has reported that the number

of houses to be provided is difficult to determine because actual movements of Defence personnel at the traditional transfer period is not yet known and the number of houses off-line at the time of the peak housing need also is not accurately known. DHA have estimated that the number of houses involved is in the order of 122 - 132.

64 DHA propose to deliver the bulk of housing (122 - 132) by December 1988 using the following techniques with any shortfall in housing procurement identified during the transfer time (November - January) being corrected by spot purchase acquisitions:

Program	Achieved	Proposed
Spot Purchase	62	-
Project Homes (A)	-	15
House and Land	-	10-15
Project Homes (B) (lots to be purchased)	-	30
<hr/> TOTAL	<hr/> 62	<hr/> 60-70

Spot Purchase

65 DHA has commenced the purchase of existing housing in Townsville as part of a Special Acquisition Replacement Program. These houses have been purchased using local service personnel as the spotters.

Project Housing

66 DHA has called for expressions of interest for the construction of houses on each of 15 allotments owned by the Authority. The evaluation of project homes will occur in June and the contract will be let in July.

House and Land Package

67 DHA has advertised for expressions of interest from builders to construct project homes on their land. Responses will be evaluated in association with the local service group and contracts will be let with builders to buy house and land packages.

Land Purchase

68 DHA has directed that some 30 allotments should be purchased to allow for a further call for project homes. It is anticipated that a construction program will commence in August/September 1988.

Committee's Conclusion

69 On the basis of the information provided by the Defence Housing Authority the Committee concludes that the housing is an integral component of the overall project and that the houses to be constructed using the mechanisms of project housing, the house and land package, and land purchase with project homes involve construction and are therefore a public work. As a result, the Committee concludes that the houses to be constructed using those mechanisms should have been referred to the Committee as part of the reference.

RELATED WORKS

70 The Committee noted during its site inspection of RAAF Base Townsville that facilities for preparation of explosive ordnance recently had been completed at a cost of over \$2m. Defence intends to overcome associated deficiencies in the loading and storage of explosive ordnance to reduce management problems with armed services exercises which are held in the area.

71 All explosive ordinance facilities have been sited on the Master Plan so that NATO Safety Principles for Ordnance are

observed. The safeguarding lines have been shown on the Townsville RAAF Base Zone Plan at Appendix C.

FUTURE WORKS

72 Future works will progress in accordance with Defence priorities, the availability of funds and passage through governmental/parliamentary processes.

RAAF Base Townsville

73 Defence is planning to further upgrade explosive ordnance facilities and increase its bulk storage capacity for aviation fuel. The siting of both facilities on the base will take into consideration safety distances which have been adopted by the Commonwealth. Approximately 10.5 hectares of privately owned land will be acquired to contain the 'yellow line' associated with the explosive ordnance storage facilities within Commonwealth controlled land.

74 It is anticipated that an area of State Government and privately owned land at the northern end of the airfield will also be acquired to allow for the extension of a parallel taxiway associated with a future runway extension.

75 Defence also will be considering options for the following:

- facilities to house combat survival training
- facilities for ground defence and base photographic activities
- physical fitness centre.

Oakey Army Airfield

76 In its submission Defence has foreshadowed further redevelopment of the Army Aviation Centre to upgrade accommodation for 1 Aviation Regiment and 173 General Support

Squadron, which presently occupy substandard facilities. Defence intends to submit those works to the Committee in 1990-91.

77 The Committee's Third Report of 1988 recommended the upgrading of Army living-in accommodation Australia-wide. This will increase the number of single rooms conforming to the Service Scales and Standards from 1838 to 6406. As part of the general upgrading process, the Army will be upgrading living-in accommodation for other ranks at Oakey.

78 Defence also has flagged the possibility of additional redevelopment if the Oakey Aviation Centre is designated in the future as the location of helicopter training for all the Services. The acquisition of an additional 100 hectares of land contiguous with the eastern boundary of the Army Aviation Centre is likely for the redevelopment.

ENVIRONMENTAL ISSUES

RAAF Base Townsville

79 The Department of Defence advised the Committee during Phase 1 that the proposal had been assessed according to the administrative procedures of the Environment Protection (Impact of Proposals) Act 1974. During Phase 1 the main environmental concerns focussed on the impact of the proposed work on Blakey's Crossing wetlands and associated bird populations. The Committee was satisfied that the Phase 1 works would not unduly affect the wetlands.

80 No further assessment was required under the Act for the Phase 2 works. Defence assessed the proposed works in accordance with the Ministerial Understanding between the Minister for the Arts, Sport, the Environment, Tourism and Territories and the Minister for Defence. The impact of the proposed works was determined to be minimal.

81 The Australian Heritage Commission wrote to the Committee stating that the works in this phase consist of construction on already reclaimed land within the boundaries of the Base. These works would be unlikely to detrimentally impact on the National Estate values of the Townsville Town Common and Blakey's Crossing wetlands, which have been proposed for the Register of the National Estate. The Commission emphasised the importance of safeguard procedures to avoid pollution of the adjacent wetlands during the construction and operation of the facilities.

Committee's Conclusion

82 The Committee concludes that the proposed works at RAAF Base Townsville consist of construction on existing reclaimed and developed land within the RAAF Base boundaries and are unlikely to have a detrimental impact on the adjacent wetlands. Australian Construction Services and Defence confirmed that all precautions will be taken to avoid any pollution of the wetlands area.

Louisa Creek Drainage Scheme

83 Louisa Creek drains some 2000 hectares of residential land upstream of the base. The efficiency of drainage upstream can be improved only by the progressive minimisation of downstream control on the system's hydraulics. To this end the City of Townsville Council is excavating material from the area adjacent to the base.

84 The Council had urged ACS during Phase 1 works, and continues to urge it, to use the general fill from the proposed Louisa Creek Drain improvement scheme as fill for projects on the base. ACS has rejected the fill on both occasions as being unsuitable.

85 ACS told the Committee that when the costs associated with the excavation and provision of temporary access and haulage roads are taken into account, it has been estimated for the

relatively small quantity of fill required, that it is not economic to use the excavated material on the Phase 2 works, notwithstanding the significant environmental issues involved. ACS stated, however, that it will continue to liaise and co-operate with the Council of the City of Townsville to assess the technical and environmental suitability of using material excavated from the Louisa Creek Drain for future projects on the RAAF Base Townsville where technically and economically viable. The Committee accepts ACS comments on this issue.

Oakey Army Airfield

86 Environmental issues in relation to the Oakey proposal have been assessed internally in accordance with the Ministerial Understanding between the Minister for the Arts, Sport, the Environment, Tourism and Territories and the Minister for Defence. The impact of the building and civil works has been assessed as minimal.

87 The following actions have been initiated to satisfy the administrative procedures of the Environment Protection (Impact of Proposals) Act 1974:

- a review of proposed flying areas to minimise noise exposure in residential areas
- production of Australian Noise Exposure Index and Forecasts to enable an appreciation of possible noise impacts
- public information release at Oakey to indicate development plans and impacts.

88 Defence told the Committee that those conditions are being fulfilled.

Noise Levels

89 The Department of Defence had noise tests carried out as a result of the environmental impact process undertaken prior to Phase 1. Those tests were performed by the National Acoustic Laboratories to determine and compare the noise levels generated by the new Black Hawk and existing Iroquois helicopters. Results show that the Black Hawk helicopter is marginally quieter than the Iroquois helicopter.

90 Witnesses at the hearing stated that the main source of aircraft noise in Townsville was civil and military high performance jets rather than helicopters.

91 It is expected that the introduction of Black Hawk helicopters at Oakey will result in a slight increase in noise levels. This increase will impact only minimally on the surrounding community.

92 Defence has produced Australian Noise Efficiency Forecast contours for both Townsville and Oakey and has made them publicly available. All the relevant local councils were satisfied with the implications for the forecasted noise levels.

CONSULTATION

RAAF Base Townsville

93 Extensive consultations were held during Phase 1 with all levels of government and local public interest organisations. Defence and ACS have continued the consultation process during the development of the Phase 2 proposal. The following authorities and groups were consulted:

- Department of Transport and Communications (Aviation Group)
- Department of Administrative Services (Australian Property Group)

- Telecom Australia
- North Queensland Electricity Board
- Council of the City of Townsville
- James Cook University of North Queensland (regarding structural solutions for upgrading various buildings).

94 Consultations also have been held with RAAF staff and a representative wives' group to obtain comments on the houses being provided for RAAF personnel.

Oakey Army Airfield

95 During the development of the proposal for Oakey Army Airfield the following authorities and organisations were consulted, none of which raised any objections:

- Department of Transport and Communications
- Premier's Department, Queensland
- Co-ordinator General's Department, Queensland
- Land Administration Commission
- Local Government Department, Queensland
- Main Roads Department, Queensland
- Toowoomba City Council
- Crows Nest Shire Council
- Jondaryan Shire Council
- Pittsworth Shire Council
- Rosalie Shire Council.

96 In addition, in keeping with the conditions of the Environment Protection (Impact of Proposals) Act 1974 a public meeting was held at Oakey in March 1988 to outline to the local community the planned and anticipated developments and noise level implications at the Army Aviation Centre over the next ten years. Defence told the Committee that the proposal received overwhelming public support. That view was confirmed by local shire representatives attending the site inspection and in submissions to the Committee.

97 Further consultations will be undertaken with Federal, State and local authorities concerning civilian use of Oakey Airfield and the significance of current and projected noise exposure on future urban growth.

Committee's Conclusion

98 The Committee is satisfied with the level of consultation on the proposals at Townsville and at Oakey and commends the Department of Defence for the success of its public consultation program at Oakey.

CONSTRUCTION PROGRAM

99 Subject to Parliamentary approval, it is proposed that tenders for the Phase 2 works be let in September 1988 for the RAAF Base Townsville works and that construction will be completed in approximately March or April 1990.

100 It is proposed that tenders for Oakey Army Airfield will be let at the same time. The construction time will be approximately 14 months. The proposed completion date (October 1990) will coincide with the transfer to the Army Aviation School of Black Hawk conversion training.

LIMIT OF COST

101 The limit of cost for the proposal is \$24.2m at October 1987 prices comprising \$19.2m at RAAF Base Townsville and \$5m at Oakey Army Airfield.

102 The limit of cost estimate includes the following:

- building works
- mechanical/electrical services
- civil and hydraulics works
- landscaping
- security.

103 The Committee was advised by ACS that consultants were used for elements of architectural design and documentation, site investigations, landscaping and electrical work associated with Phase 2 of the Townsville RAAF Base proposal with a total commission of approximately \$300 000.

104 Furniture and fittings to fit out the proposed on-base facilities and married quarters at RAAF Base Townsville and administrative, instructional and workshop facilities at Oakey Army Airfield are not included as part of the reference. Defence however, advised the Committee that the estimated cost for fitout would be \$2.2m at Townsville and \$0.15m at Oakey.

Committee's Recommendation

105 The Committee recommends the construction of facilities for the second phase of delivery of the Black Hawk helicopter at RAAF Base Townsville and training facilities at Oakey Army Airfield, Queensland at an estimated cost of \$24.2m at October 1987 prices comprising \$19.2m at RAAF Base Townsville and \$5m at Oakey Army Airfield.

CONCLUSIONS AND RECOMMENDATION

106 The conclusions and recommendation of the Committee and the paragraph in the report to which each refers are set out below:

	Paragraph
1. There is a need for upgrading, extension and provision of new operational and support facilities at RAAF Base Townsville to support Phase 2 delivery of the Black Hawk helicopter and the on-base relocation of No 35 Squadron fixed wing element.	30
2. Oakey Army Airfield is the most suitable site for development of Black Hawk operational training for aircrew and maintenance personnel. There is a need for upgrading, extension and provision of new operational and support facilities at Oakey to support the introduction of Black Hawk training functions.	44
3. The Committee concludes that the proposed works as designed will fulfil the needs as outlined at both RAAF Base Townsville and Oakey Army Airfield, Queensland.	55
4. On the basis of the information provided by the Defence Housing Authority the Committee concludes that the housing is an integral component of the overall project and that the houses to be constructed using the mechanisms of project housing, the house and land package, and land purchase with project homes involve construction and are therefore a public work. As a result, the Committee concludes that the houses to be constructed using those mechanisms should have been referred to the Committee as part of the reference.	69

5. The Committee concludes that the proposed works at RAAF Base Townsville consist of construction on existing reclaimed and developed land within the RAAF Base boundaries and are unlikely to have a detrimental impact on the adjacent wetlands. Australian Construction Services and Defence confirmed that all precautions will be taken to avoid any pollution of the wetlands area. 82

6. The Committee is satisfied with the level of consultation on the proposals at Townsville and at Oakey and commends the Department of Defence for the success of its public consultation program at Oakey. 98

7. The Committee recommends the construction of facilities for the second phase of delivery of the Black Hawk helicopter at RAAF Base Townsville and training facilities at Oakey Army Airfield Queensland at an estimated cost of \$24.2m at October 1987 prices comprising \$19.2m at RAAF Base Townsville and \$5m at Oakey Army Airfield. 105



Colin Hollis
Chairman
25 August 1988

APPENDIX A

LIST OF WITNESSES

CORNISH, Mr B.H., Project Manager (Defence), Queensland Region, Department of Administrative Services, Construction Group, 313 Adelaide Street, Brisbane, Qld 4000

FISHER, Brigadier R.W., Director General, Accommodation and Works (Army), Department of Defence, Russell Offices, Canberra, ACT 2600

GUREVITCH, Air Commodore R.N., Director General, Facilities (Air Force), Department of Defence, Russell Offices, Canberra, ACT 2600

HILL, Mr B.J., Manager, Capital Programs, Defence Housing Authority, 2 Brisbane Avenue, Barton, ACT 2600

JACKA, Mr A.R., Acting Associate Director (Projects), Queensland Region, Department of Administrative Services, Construction Group, 313 Adelaide Street, Brisbane, Qld 4000

JEWELL, Lieutenant Colonel R.E. Staff of Director General, Accommodation and Works (Army), Department of Defence, Russell Offices, Canberra, ACT 2600

LANE, Wing Commander B.J., Staff of Director General, Facilities (Air Force), Department of Defence, Russell Offices, Canberra, ACT 2600

MCGUINNESS, Colonel P.L., Director, Battlefield Helicopter Project, Department of Defence, Russell Offices, Canberra, ACT 2600

PLATT, Mr P.R., Principal Architect (Defence), Department of Administrative Services, Construction Group, 470 Northbourne Avenue, Dickson, ACT 2602

SMITH, Group Captain P.G., Commander, Tactical Transport Group, RAAF Base, Townsville, Qld 4810

STANTON, Mr B.D., City Engineer, Townsville City Council, PO Box 1268, Townsville, Qld 4810

TEMPLAR, Mr R.D., General Manager, Operations, Defence Housing Authority, 2 Brisbane Avenue, Barton, ACT 2600

CONSTRUCTION DETAILS

RAAF BASE TOWNSVILLE

Site Inspection

Site investigations have been carried out and the proposed works include pavement and footing designs appropriate to the site soil conditions and structural designs appropriate to cyclonic conditions.

Building Construction

The proposed building works will consist primarily of upgrading and extension of existing facilities and will utilise a repetition of existing structural systems, construction techniques and finishes. Where necessary structural upgrading and additional debris protection measures will be provided. Generally, traditional steel framing, load bearing blockwork, reinforced concrete and timber framing construction will be utilised and no special construction techniques will be required.

The new living-in accommodation generally will be of two-storey load bearing masonry construction with some single-storey construction for the junior and senior officers. Finishes will be low maintenance and special acoustic treatment in the form of double glazing and additional insulation will be provided.

Mechanical Services

Offices and special workshop areas required to be environmentally controlled will be serviced by ducted packaged air-conditioning systems. Ductwork serving existing air-conditioned areas will be modified to suit new partitioning. Air-conditioning will be provided to the new living-in accommodation. Exhaust ventilation will be provided to toilets and ablution areas and heat producing equipment. Reticulated compressed air will be provided to work benches, vehicle servicing equipment and other service points as necessary.

Electrical Services

New frequency converters will be provided for technical support facilities in buildings 72, 236 and 237. External electrical services will include high voltage and data monitoring cabling. A new substation, high and low voltage cabling, distribution pillars and sub-mains will be provided to the new living-in accommodation.

Fire Station

Existing sprinkler systems will be upgraded or new sprinkler systems provided where necessary. Thermal and smoke detection, roof vents and extinguishers also will be provided. The existing

fire points and foam suppression pop-up sprinklers in hangar 236 will be extended.

Civil and Hydraulic Works

The existing No 35 Squadron apron will be extended to the east to provide 12 additional Black Hawk helicopter parking positions and a stub taxiway connection to the existing taxiway will be provided. Construction will be similar to that for the adjacent Phase 1 works. The existing No 35 Squadron apron will be overlaid with a 75 mm bituminous concrete surface course to permit regular movements by Hercules C130 aircraft.

Water hydrants will be provided around the edge of the extended apron and additional apron edge and taxiway lights. Aircraft earthing and tie-down points will also be installed. Other civil and hydraulics works will include site works and hydraulic services to the new other ranks living-in accommodation, extension of the heavy equipment parking area with provision for a washdown bay and vehicle ramp and landscaping.

Car parking will be provided in accordance with the Service Scales and Standards of Accommodation.

Security

The inner security perimeter established in the Phase 1 works will be extended to encompass the Phase 2 works. The will consist of fencing and intruder detection systems. Upgrading of individual building security will be undertaken as required.

OAKLEY ARMY AIRFIELD

Site Investigation

Site investigations have been carried out and the proposed works includes pavement and footing designs appropriate to the soil conditions present on site.

Building Construction

The proposed building works will consist mainly of upgrading and extension of existing facilities and will match existing structural systems, construction techniques and finishes. Generally traditional steel framing and reinforced concrete construction will be utilised. Bored pier foundations with suspended ground slabs will be provided for two-storey buildings and raft slabs will be provided for single-storey buildings.

Mechanical Services

Air-conditioning will be provided to workshop areas required to have a controlled environment. Heating and mechanical ventilation will generally be provided to other workshop areas, offices and classrooms. Exhaust ventilation will be provided to toilets and ablution areas. Existing compressed air reticulation will be extended to serve new workshop areas. Demineralised

water supply will be provided to the fibreglass and non-destructive inspection workshops.

Electrical Services

Light, power, telephones and fire alarms will be extended and upgraded as required, with specialised power being provided to the hangar workshop areas. Relocation of some external high voltage cabling will be required.

Fire Protection

Existing fire protection and detection systems will be extended.

Civil and Hydraulic Works

The existing aircraft apron will be extended to the east to provide 4 Black Hawk helicopter parking positions. A taxiway and apron pavement serving an enclosed parking shelter for 6 Black Hawks will be provided to the south of the apron extension. Construction will be similar to existing works. Existing apron edge lighting will be relocated and upgraded and aircraft earthing and tie-down points will be provided.

External hydraulic services will be provided to the upgraded and extended facilities.

Security

A security fence along the eastern boundary of the airfield and security lighting will be provided.

APPENDIX C

ILLUSTRATIONS

Figure

- 1 Townsville Regional Plan
- 2 Townsville RAAF Base Zone Plan
- 3 Townsville RAAF Base Site Plan A
- 4 Townsville RAAF Base Site Plan B
- 5 Townsville RAAF Base Site Plan C
- 6 Oakey Regional Plan
- 7 Oakey Army Airfield Locality Plan
- 8 Oakey Army Airfield Site Plan

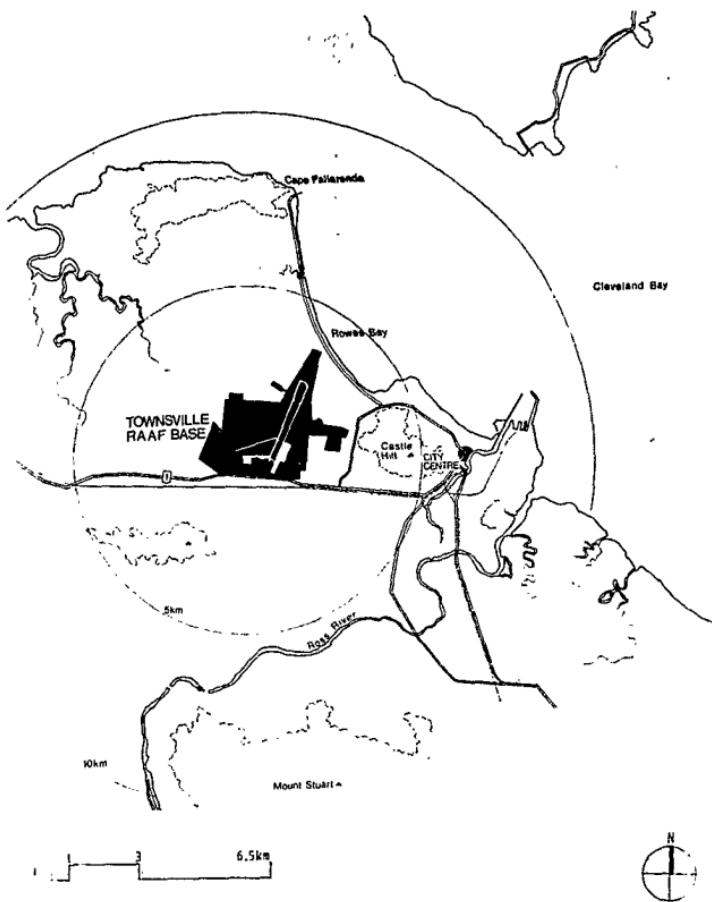


FIGURE 1: TOWNSVILLE REGIONAL PLAN

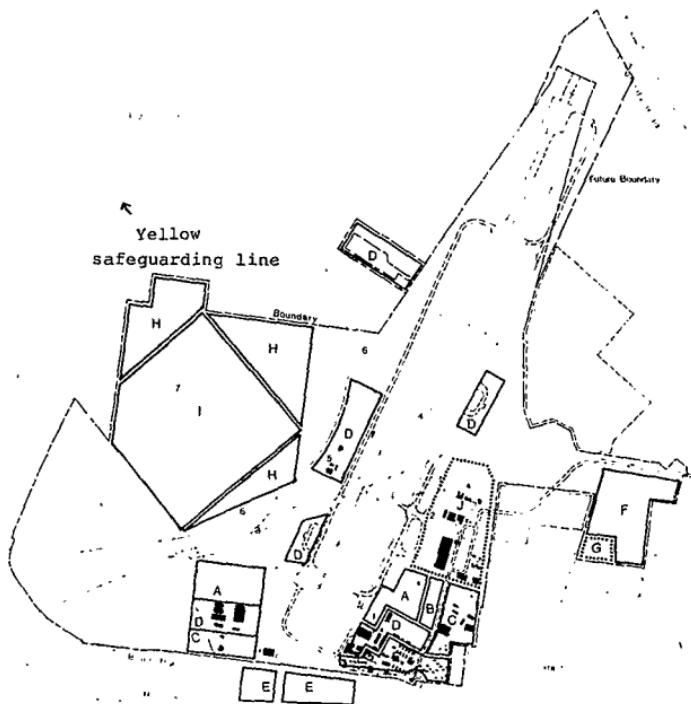
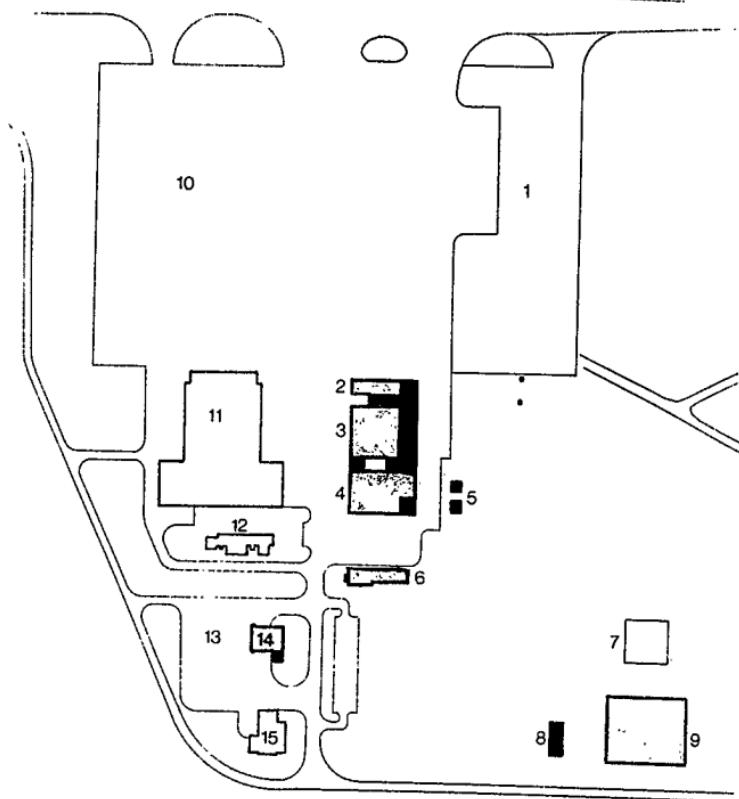


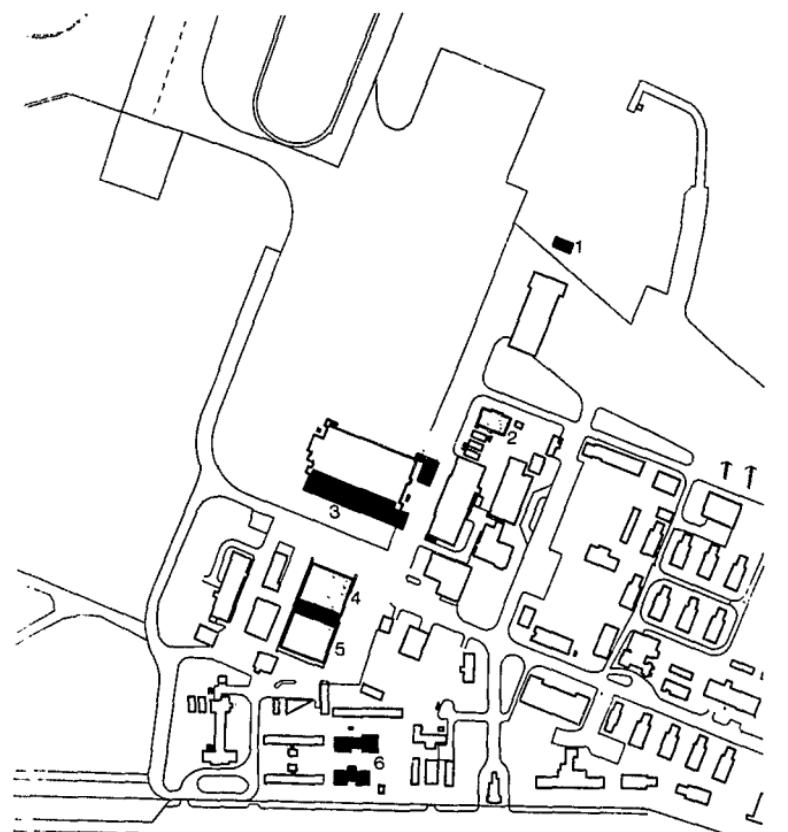
FIGURE 2: TOWNSVILLE RAAF BASE ZONE PLAN



Legend

- 1 Apron Extension
- 2 Flight Line (235)
- 3 Hanger (236)
- 4 Technical Support (237)
- 5 Field Training
- 6 Headquarters (238)
- 7 Secure Compound
- 8 Fuel Tank Test
- 9 Q Store (234)
- 10 Existing Apron
- 11 Existing Hanger & Annexes
- 12 Existing Headquarters
- 13 Existing Fuel Tanker Park
- 14 Existing Tanker Mtc. (242)
- 15 Existing Powerhouse

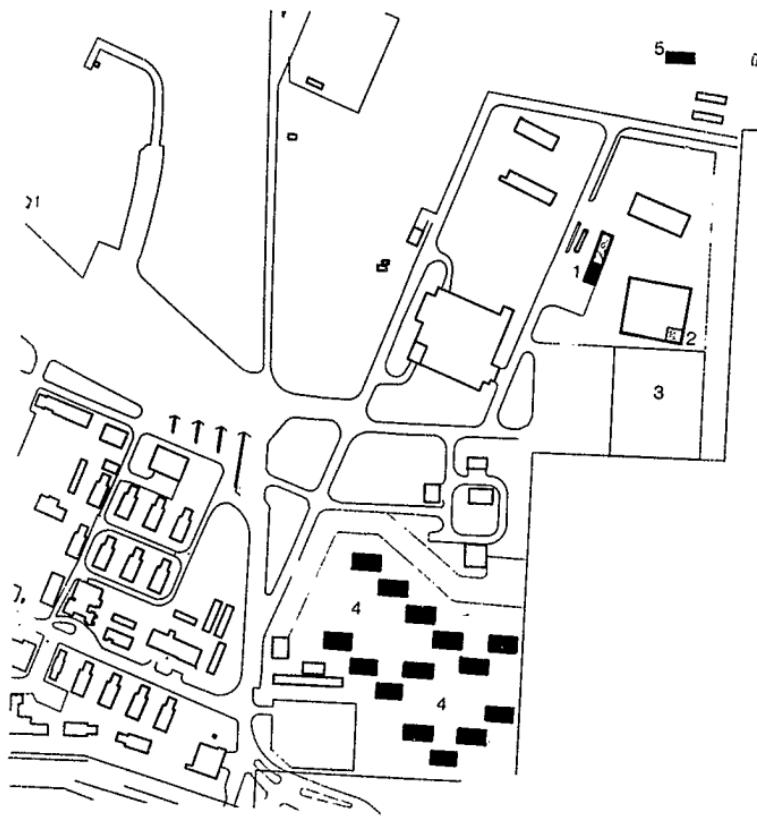
FIGURE 3:
TOWNSVILLE RAAF BASE
SITE PLAN A



Legend

- 1 Temporary Flight Line
- 2 Headquarters (70)
- 3 Extension to Hanger (75)
- 4 Technical Support (72)
- 5 Vehicle Maintenance (69)
- 6 Officer Accommodation

FIGURE 4: TOWNSVILLE RAAF BASE SITE PLAN B



Legend

- 1 Motor Transport (204)
- 2 Store (202)
- 3 Vehicle Compound (206)
- 4 OR Accommodation
- 5 Furniture

FIGURE 5:
TOWNSVILLE RAAF BASE
SITE PLAN C

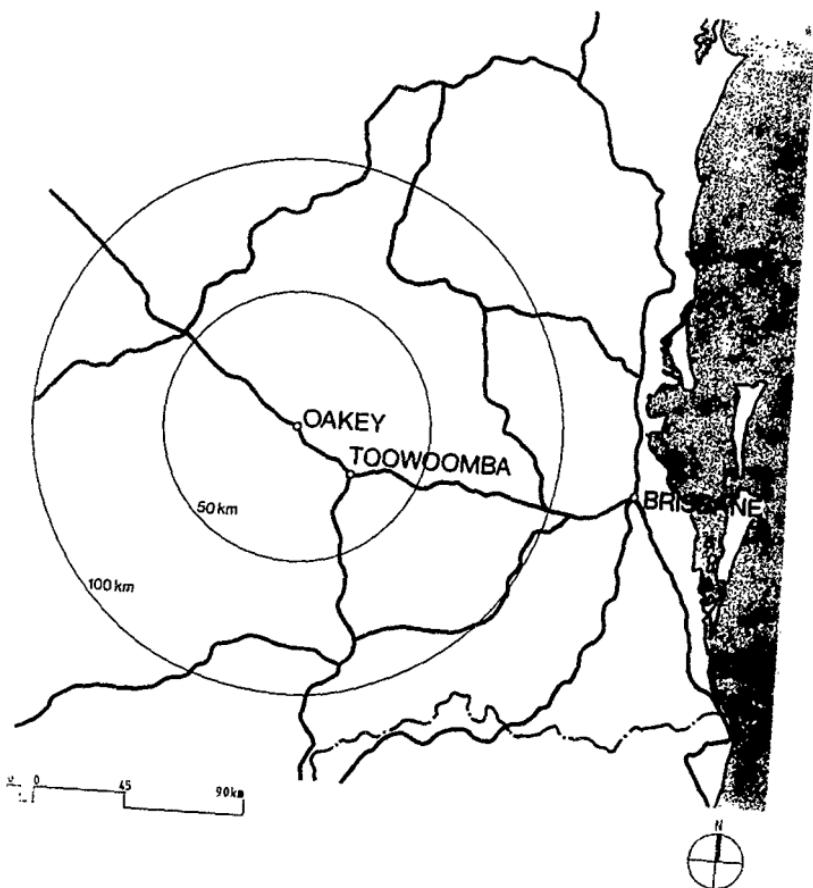
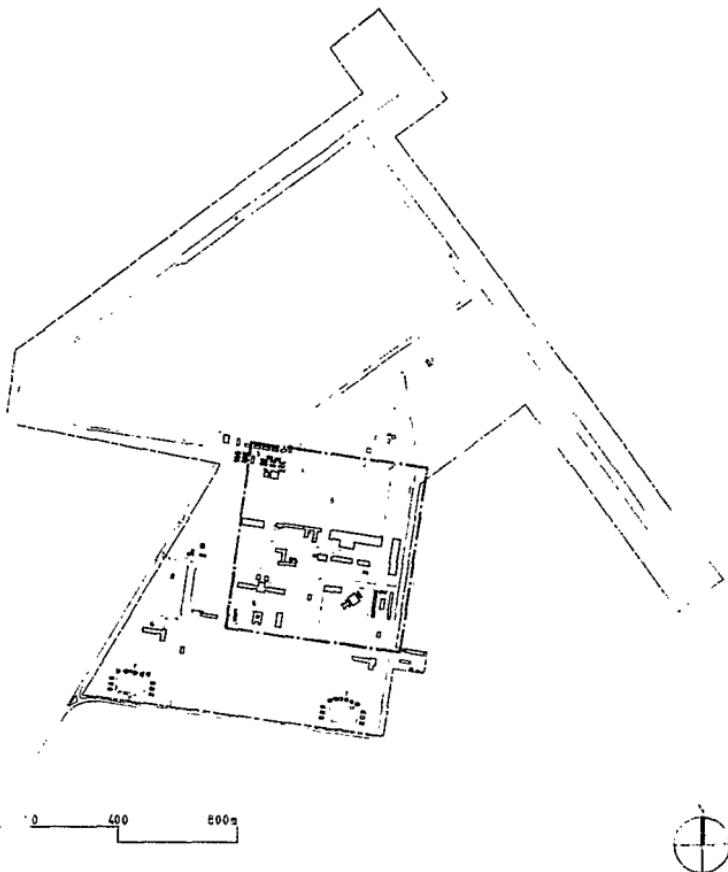


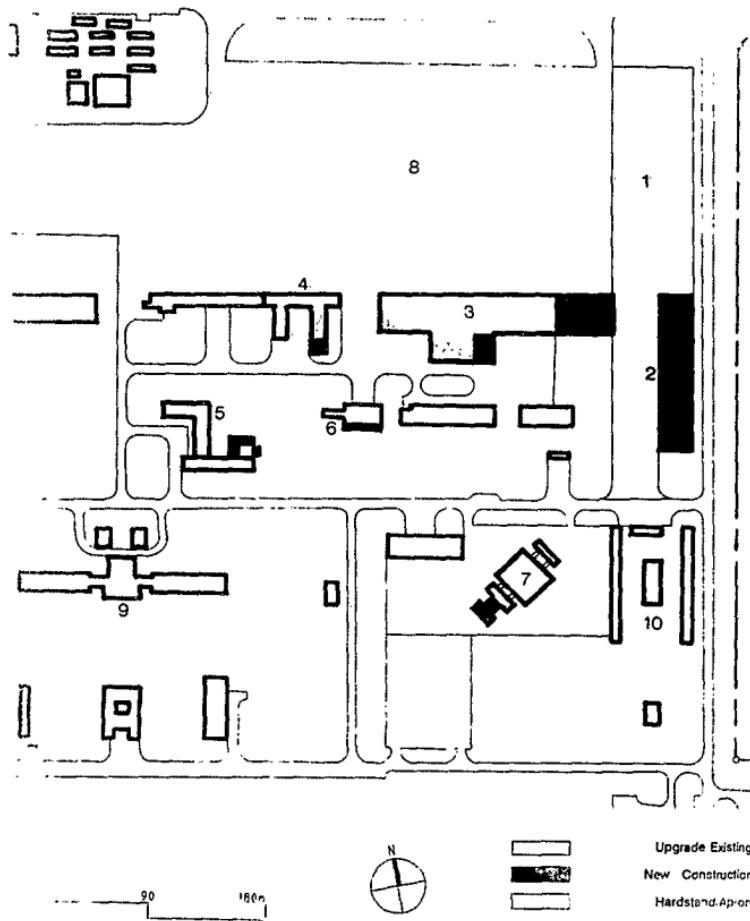
FIGURE 6: OKEY REGIONAL PLAN



Legend

- 1 Civil Aviation Facilities
- 2 Fuel Compound
- 3 1st Aviation Regiment
- 4 Runway
- 5 Operations Area
- 6 Accommodation/Messing
- 7 Married Quarters

FIGURE 7: OKEY ARMY AIRFIELD LOCALITY PLAN



Legend

- 1 Apron Extension
- 2 Enclosed Aircraft Parking
- 3 Hangar & Technical Support (B10)
- 4 Aircrew Training (B14)
- 5 Maintenance Training (B16)
- 6 Training Hangar (B13)
- 7 Technical Support (B6)
- 8 Existing Apron
- 9 Existing Messing & Accommodation
- 10 Existing Attrition Hangars

FIGURE 8:
OAKEY ARMY AIRFIELD
SITE PLAN