



1. Introduction

1.1 Outline tasks required to be undertaken in the brief

The brief jointly prepared by the NSW Heritage Office and the Richmond Valley Council called for the preparation of a Plan of Management for the Evans Head Memorial Aerodrome.

“The aim of the plan is to set clear guidelines for the long-term development of the site which are compatible with its heritage uses”.

In preparing the Plan of Management the objectives were to:

- ▶ Provide management guidelines which achieve an appropriate balance between the provision of economic development opportunities, amenity and facilities to the people of the area and the long term conservation and use for aviation of the Evans Head Memorial Aerodrome.
- ▶ Understand the heritage item through investigation of its historical and geographical context, its history, fabric and research potential.
- ▶ Understand the importance of the local and wider community.
- ▶ Review the statement of significance to confirm the nature, extent and degree of significance of the heritage item.
- ▶ Develop a concise management policy, arising out of the statement of heritage significance, to guide current and future owners of the items on its development potential and ongoing maintenance requirements.
- ▶ Identify and examine the constraints and opportunities of the site.
- ▶ Consider current proposals for re-use or development and how they can best be achieved in accordance with the conservation policy.
- ▶ Discuss several options for development proposals.
- ▶ Discuss and recommend financial management options available to the land holder.
- ▶ Recommend how the heritage items can be best managed, including details of the responsibility of owners, managers and lessees and consideration for stakeholders interested in its ongoing conservation and use.
- ▶ Include proposals to review the Plan of Management and the item’s maintenance.
- ▶ Identify the curtilage and development zoning areas with guidelines for future siting, scale and type of future development (including recommendations for planning controls under the Environmental Planning and Assessment Act).
- ▶ Assess and identify options and opportunities for ongoing aviation use of the site.
- ▶ Prepare a strategy for heritage interpretation and public access to the site.

This Plan of Management will be used to inform the Heritage Council when is assessing development applications relating to the study area/item, therefore this document should serve as a useful tool in the approval process.



1.2 Definition of the Study Area/Item

The Evans Head Memorial Aerodrome is located within the northern NSW coastal town of Evans Head. Evans Head lies at approximately 720 kilometres north of Sydney and 240 kilometres south of Brisbane on the Evans River (see Figure 1).

The Evans Head Memorial Aerodrome is known as Lot 141 DP1067639 and is bounded by Woodburn Road to the south-west, Currajong Street to the south-east, Broadwater – Evans Head Road to the East and the Broadwater National Park to the north.

Figure 2 shows an Aerial view of the Evans Head Memorial Aerodrome Site, and the layout of areas within the Aerodrome that are discussed within this plan.

The Evans Head Memorial Aerodrome is currently owned by the Richmond Valley Shire Council and the land is classified as “operational” under the NSW Local Government Act 1993.

1.3 Methodology – note guidelines and publications that have informed the process

The guidelines and publications that have informed the preparation of the Plan of Management are contained in the reference section of this report.

1.4 Limitations – what has not been covered in the plan

The historical research was limited to secondary sources, limited archival research and oral interviews. The thematic history does not purport to be a definitive researched history of the site, but is intended to provide an accurate background for the assessment of cultural significance.

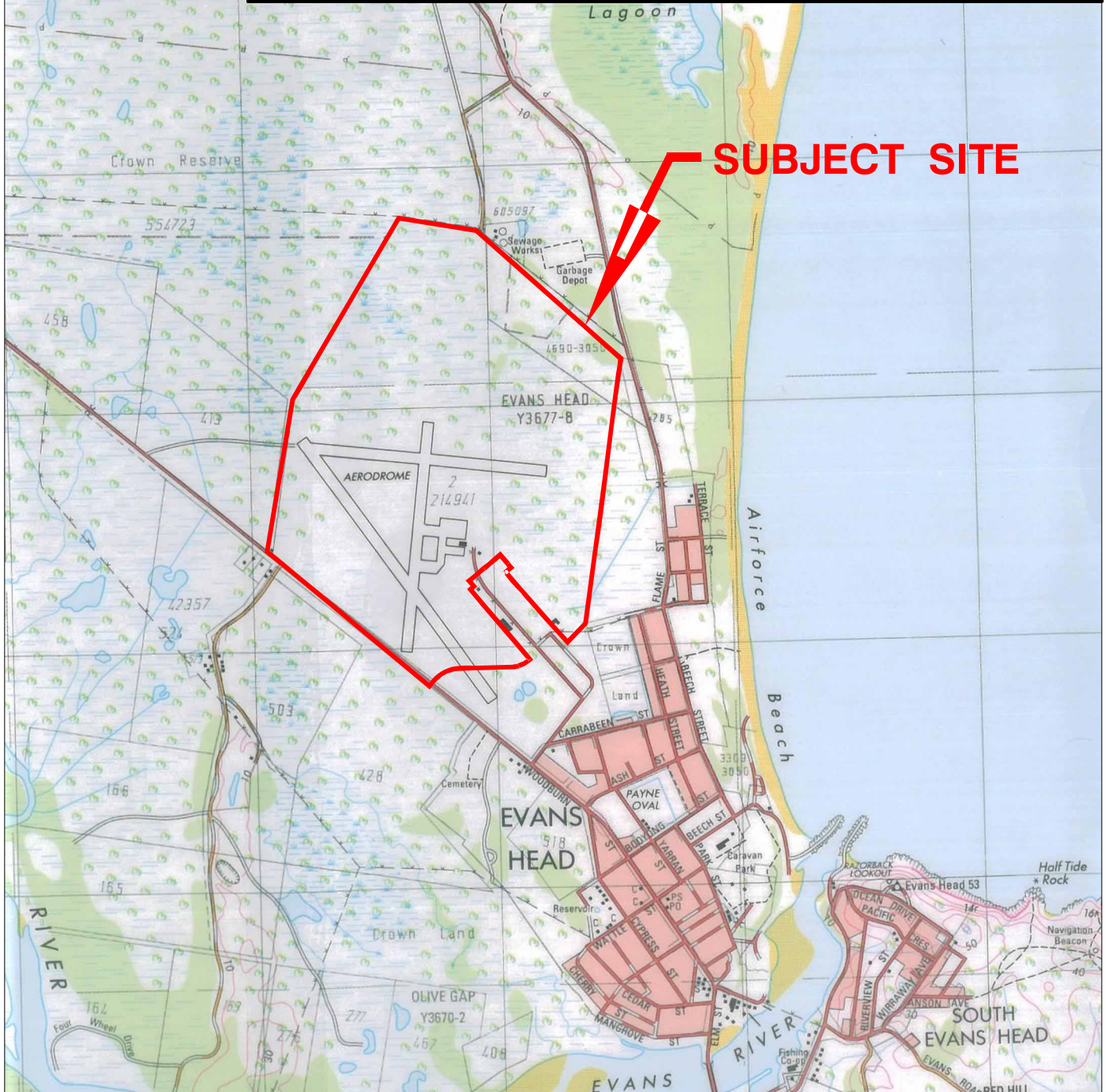
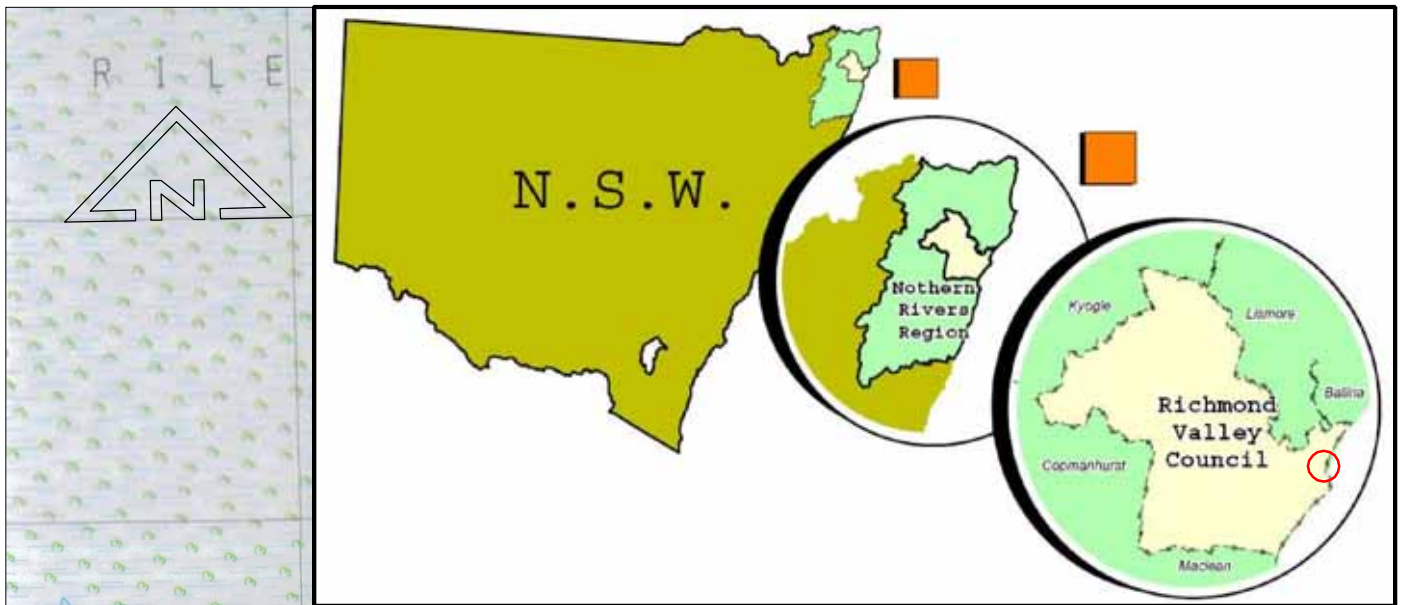
The field survey of the archaeological remains of the aerodrome was limited to above ground remains. Large areas of heath land north-west of the aerodrome were not subject to detailed survey.

1.5 Identification of Authors

The consultant team assembled by GHD Pty Ltd consisted of Mr Rafael Chemke as the project manager and Naomi Leo; a specialist heritage sub consultant, Dr Michael Pearson of Heritage Management Consultants Pty Ltd was also engaged on the project.

The opportunities and constraints, community and stakeholder consultation, GIS and project management tasks were undertaken by GHD Pty Ltd.

The historical research, heritage interviews, site heritage survey, writing of the thematic history, assessment of significance and heritage policy development was undertaken by Dr Michael Pearson.



SUBJECT SITE

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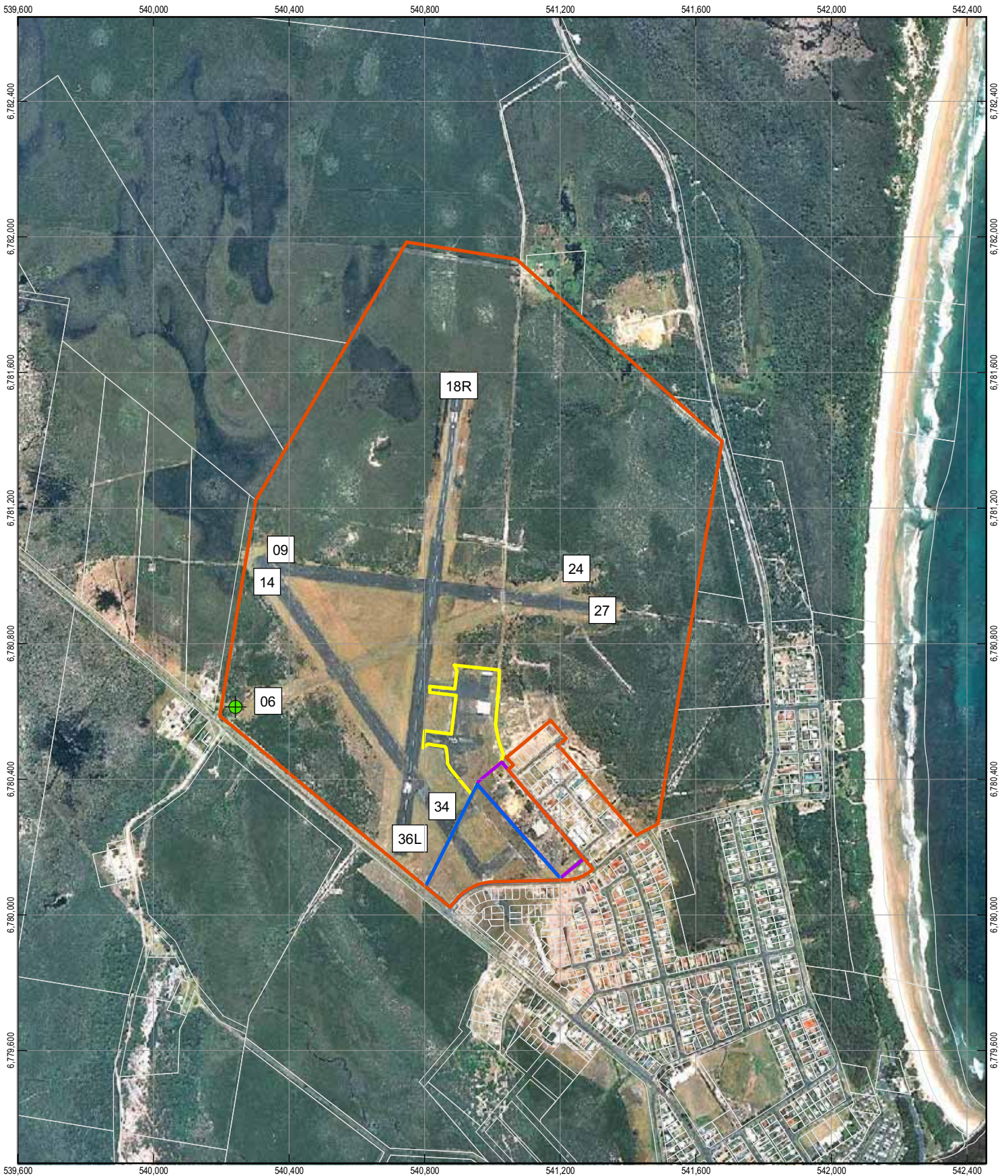


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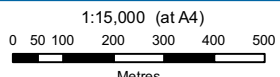
REGIONAL
 LOCATION

figure 1.

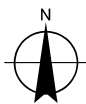


LEGEND

- Subject Site
- Northern Hangar Area
- Southern Hangar Area
- Machine Gun Pit
- South Eastern Area



Map Projection: Transverse Mercator
 Horizontal Datum: Geocentric Datum of Australia
 Grid: Map Grid of Australia 1994, Zone 56



Richmond Valley Council
 Review of Evans Head Memorial Aerodrome PoM

Job Number	22-14289
Revision	B
Date	19 December 2008

**Evans Head Memorial Aerodrome
 Site Layout**

Figure 2



1.6 Acknowledgements

The assistance of many Evans Head residents and others with an interest in the No. 1 BAGS is gratefully acknowledged. Special thanks go to the following Evans Head residents:

- ▶ Ian Crome
- ▶ Margaret and Jim Saul
- ▶ 'Bub' Hardy
- ▶ Dr Richard Gates
- ▶ Councillor Ray Jeffery
- ▶ John Saunders

The consultants would also like to acknowledge the contributions made to this study by the participants at the public workshop held in Evans Head on 3 March 2005. All of the participants who completed the registration form are listed in Appendix C. We also wish to thank Richmond Valley Council Staff and Councillors, staff of the NSW Heritage Office, Ms Andrea Brew, the Evans Head Memorial Aerodrome Committee and the Ex-Services Home, Ballina.



2. Consultation

Consultation undertaken as part of the Evans Head Memorial Aerodrome Plan of Management process to date is outlined below.

2.1 Letters to Stakeholders

A letter was sent to the following contacts informing them of the preparation of the Plan of Management, and also requesting input.

- ▶ Mr Andrew Brew – NSW Heritage Office
- ▶ The General Manager – Richmond Valley Council
- ▶ Dr Richard Gates – The Evans Head Memorial Aerodrome Committee
- ▶ John W Steinbach – RAAF
- ▶ Paul Morris – CEO Ballina Ex Services Homes
- ▶ NSW Rural Fire Service
- ▶ Richard Dunning – Department of Infrastructure Planning and Natural Resources
- ▶ Gary Davey – Department of Environment and Conservation

Copies of responses received are included in Appendix B.

2.2 Meeting at NSW Heritage Office

Rafael Chemke (GHD – Project Manager) and Dr. Michael Pearson (Heritage Consultant) met with Ms Linda Byrne and Mr Cameron White of the heritage office to discuss the progress of the Plan and to discuss issues of importance from a heritage point of view.

2.3 Information Session

GHD provided an information session on 3rd February 2005, regarding the Plan of Management. Representatives from Richmond Valley Council, The Evans Head Aerodrome Committee and the NSW Heritage Office attended the information session.

2.4 Community Workshop

A community workshop regarding the Evans Head Memorial Aerodrome Plan of Management was held on the 3rd March 2005. A list of people who attended the meeting is included in Appendix A.

2.5 Correspondence with Stakeholders

GHD has been in regular telephone and email contact with key stakeholders, particularly the Evans Head Aerodrome Committee.



3. Documentary Evidence

3.1 Thematic History

3.1.1 Evans Head before the Aerodrome

The Bandjalang speaking Aboriginal groups in the coastal areas adjacent to the Richmond and Evans Rivers were able to exploit coastal and estuarine environments, bordered by sub-tropical rainforest, swamps and lightly timbered country. This resulted in a very favourable food supply that was plentiful, varied and dependable.¹ This mix of environments is reflected near the Evans Head Aerodrome, with wollum heath, the Salty Lagoon, coastal beaches and rocky headland, and the estuary of the Evans River and forested areas beyond it, all within a radius of a few kilometres.

Large groups of 300 to 600 people gathering for special events are recorded in Ballina, Woodburn and Lismore². While no large gathering have been reported for Evans Head, it is possible that the local resources enabled large groups to meet. Notable local food resources included the Snapper Point rock platforms and beaches south of the Evans River, which provided shell fish represented in extensive shell middens in that area.

A creek running through the territory of the Bandjalang people was named Evans River in the early 1870s by Captain Thomas Paddon, who came across it during a walk south from the Ballina River where his ship was temporarily locked in by the bar, Paddon returned with his family in 1877 to become the area's first European settlers. Paddon engaged in gold mining from beach sands, which was an established industry during the late nineteenth century at places such as McAuley's Head, Chinamans Beach and New Zealand Beach. Paddon then built a hotel at Evans Head, and later engaged in pioneering oyster cultivation at Iron Gates, upriver from Evans Head. Paddon's sons continued in the oyster and fishing industries, and one of his sons, Jim, became a locally prominent surf life saver and a world champion rower, as was Jim's son Evans.³

In the early twentieth century Evans Head became a popular beach resort for Richmond River families. John Rosolen from New Italy opened a store in the embryonic village in 1919, to be followed by a butchers shop, a bakery, boarding houses and a restaurant. A public hall was built in 1921, where church services and picture shows were held, the original timber building being replaced with a brick hall in 1937.⁴ A provisional school was opened in 1920, and quickly converted to a public school in 1921, indicating that at least 20 children were living locally by that date⁵. The Evans Head Surf Club was formed in 1922.

However, development was largely limited to the mouth of the Evans River, with large stretches of coastal heath to north and south left in their natural state. It was this quality that was to attract the RAAF to Evans Head in 1941.

¹ Sullivan, S. 1978, 'Aboriginal diet and food gathering methods in the Richmond and Tweed River valleys, as seen in early settler records', in McBryde, I. (ed) *Records of times past: Ethnographical essays on the culture and ecology of the New England tribes*. Australian Institute of Aboriginal Studies, Canberra: 101-115.

² Sullivan 1978: 105.

³ Newman, M. 1985. *A brief history of mid-Richmond River towns, NSW*, Mid-Richmond River Historical Society: 13.

⁴ Newman 1985: 14-16.

⁵ Department of School Education Library (NSW), 1993. *Government Schools of New South Wales 1848-1993*, NSW Board of School Education, Parramatta; Newman 1985: 13-16.



Source: <http://www.woodburnevansheadrsl.com.au/history.htm> [Accessed: 05/11/2008].

Plate 1 John Rosolen's General Store

3.1.2 The Aerodrome before the War

The original airfield is referred to as an Emergency Landing Ground, built in 1936, located on State Crown land and leased to Woodburn Shire Council for aviation purposes. Works to create the field were carried out by Chesterfield and Jenkins of Grafton in July and August 1936, at a total cost of £3,860/6/2. The Shire's interests in the airfield were resumed by the Commonwealth 'for Defence purposes' on 1 April 1937. Further work was carried out in 1939 under the Defence Development Programme, to address flooding problems.⁶ Woodburn Council suggested the establishment of an instructional flying school on the site in July 1939, but this went no further. In August 1939 a RAAF exercise involving Seagull aircraft used the airfield.

⁶ Houghton-James, J. & Manley, S. 1995. *Wings at War: RAAF at Evans Head 1939-1945*. The Authors, /Aebis Publishing: 1-2.

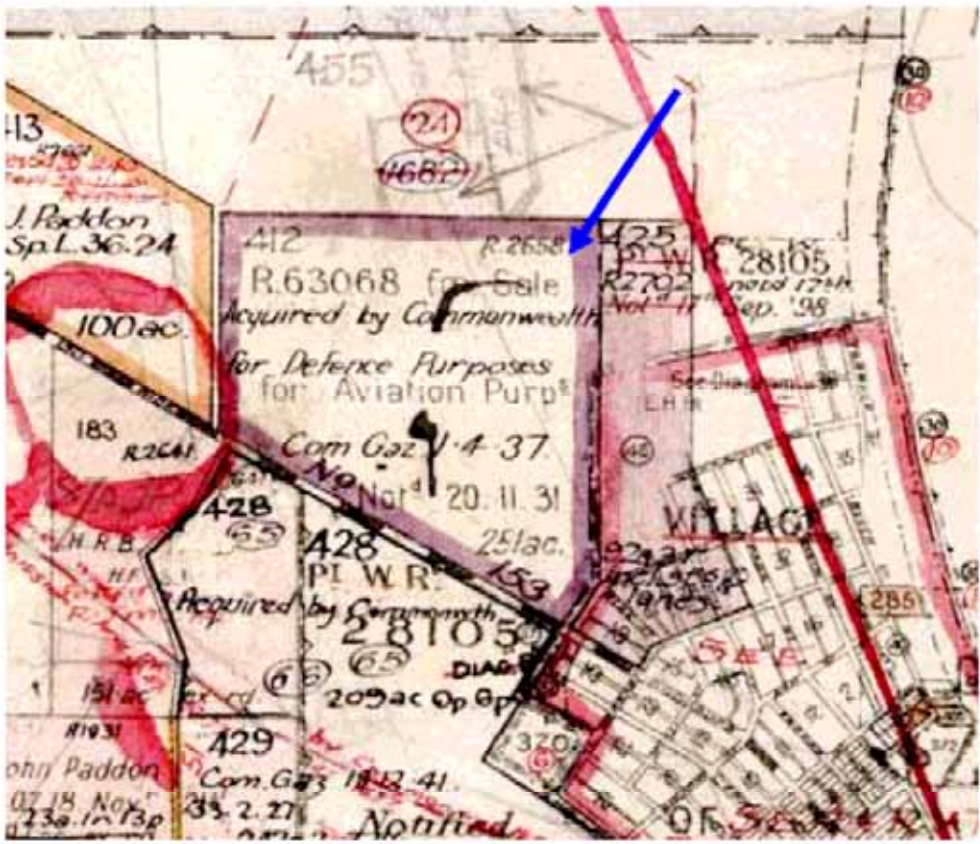


Plate 2 Map of the Parish of Riley, County of Richmond, 1938

The blue arrow indicates the subject site. The plan indicates that the land was used for Aviation Purposes from 20.11.1931 and was acquired by the Commonwealth for Defence Purposes 1.4.1937 (Plan courtesy of NSW Department of Lands – Parish Map Preservation Project, http://www.lands.nsw.gov.au/survey_mapping/parish_maps).

3.1.3 RAAF Establishments During WWII and the Empire Air Training Scheme

In a collaborative strategy to train air crews at the outbreak of World War II, the Governments of the United Kingdom, Canada, Australia and New Zealand agreed in 1939 to train a quota of air crew in their respective countries. Under the Empire Air Training Scheme (EATS), Australia's quota was set at 11,000 ground and air crew a year for the Royal Air Force, over and above what Australia needed for home defence. These crews were to operate as RAF personnel, though a commitment was made (though only partly realised) to have them operate in squadrons with fellow Australians. Initially, only basic training was to be carried out in Australia, with advanced training overseas, but this plan was changed and a full range of training had to be accommodated in Australia. As a result, a series of new specialist training bases had to be established.⁷

Ten designated Australian air bases were initially established to meet the needs of the EATS. These were located at Evans Head, Cooktown, Rockhampton, Moruya, Malacoota, Bairnsdale, Mt

⁷ Hancock, V. 1990. *Challenge*. Access Press, Northbridge, WA: 63-64; Brew, A. 2001. 'Thematic study: World War II aerodromes and associated structures in New South Wales', Report for Deakin University and the NSW Heritage Office, (also located on Heritage Office website: www.heritage.nsw.gov.au)

Gambier, Albany, Busselton, and Flinders Island.⁸ Many other EATS training schools were established during the war. Evans Head was to become the home of No. 1 Bombing and Gunnery School (BAGS), and was later supplemented by No. 2 BAGS at Port Pirie, South Australia, and No 3 at East Sale, Victoria.

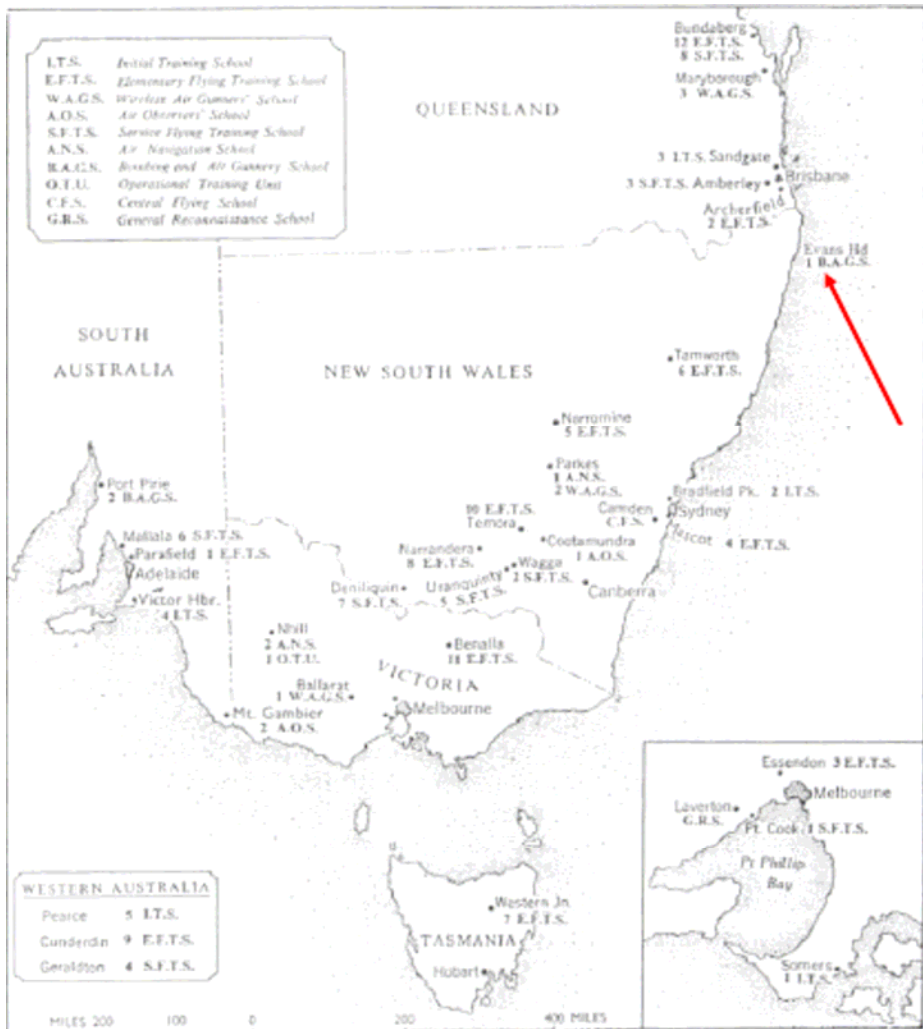


Plate 3 Map of planned Australian EATS Schools, December 1941

The actual bases built do not correspond exactly with the planned bases. RAAF Base Evans Head is indicated by the red arrow (Gillison, Douglas. 1962 (1st ed). *The Official History of Australia in the War of 1939–1945, Series III Air, Volume I, Royal Australian Air Force, 1939–1942*, p.111).

3.1.4 Origins and Establishment of the RAAF No. 1 Bombing and Gunnery School (BAGS)

Wing Commander Valston Hancock was Director of Works and Buildings for the RAAF at the outbreak of war, and became directly involved in the establishment of the EATS. The location of a site for the EATS bombing and gunnery school posed particular problems, as the location had to be

⁸ Haughton-James & Manley 1995: 2.



a large area of flat land with no nearby habitation, due to the risk of bomb shrapnel and bullet fire (especially from air-to-air gunnery), have some high land from which bomb fall could be observed, and an area for an aerodrome and living quarters. Hancock started a search and the northern rivers of NSW was suggested to him. As a result Hancock and Claude Lightfoot flew to the Evans Head emergency landing ground in October 1939 to investigate its suitability, and found the location to be ideal for their needs.

Hancock immediately started planning for the construction of the aerodrome and adjacent range facilities to train navigators and bomb aimers in bombing techniques, and wireless operators and air gunners in firing at ground and air targets.⁹ Work to extend the existing landing ground started in November 1939 under the Unemployment Relief Works Grants Scheme.

Construction of the BAGS base was rapid, and just seven months after the official authorisation the first trainees arrived, in August 1940, with Valston Hancock as Commanding Officer and Chief Instructor (from 26/8/1940 to 8/1/1942). So rapid was the process that the paper-work lagged behind, and the official letter confirming hand-over of the land did not appear until 22/1/1941.¹⁰ Accommodation, offices and stores huts were built with pre-fabricated buildings 20 feet (6.09m) wide, built to the length required, and put together in various configurations (including 'L', 'H', 'T', and 'U' plan forms). The Hangars were Bellman hangars, a British design brought back by Hancock after a visit, made with pre-fabricated standardised steel frame sections, made in Australia by BHP. Twelve hangars were originally built, but photos show 17 by the end of the war.¹¹ Accommodation had to be provided, at the height of the base's use, for up to 1,400 personnel at any one time.

The State Government carried out some of the work in 1940 and a further 25.9 hectares was acquired at this time. Civilians carried out the construction. Arthur Collyer was in charge of a gang of 40 men who built the first runway, using stone from the Blue Pool and Riley's Hill. Local oral evidence suggests that the initial runway design had an insufficiently thick base for the water-logged soil, and had to be rebuilt.¹² Robert Benson led a team that built the hangars, which went on to build hangars at Deniliquin. Dayal Singh of Lismore did most of the construction of the base facilities.¹³

The original gravel airstrips caused problems, with sand entering the aircraft air intakes, and they were soon tar-sealed. A Marine Section was established, to provide maritime search and rescue and target-towing support, with wharves and support buildings constructed in the Evans Head village.

The No 1 Bombing and Gunnery School (No 1 BAGS) was officially established on 26/8/1940 with 10 trainees.¹⁴ The first Fairey Battle aircraft arrived on 17/9/1940, and gunnery training began in October and bombing in November of that year. No 1 BAGS was reputedly the largest airforce training facility in the Southern Hemisphere set up under the EATS during WW II.

⁹ Haughton-James & Manley 1995: 2.

¹⁰ Hancock 1990: 62; Haughton-James & Manley 1995: 2.

¹¹ Haughton-James & Manley 1995: 9, 68.

¹² Pers. Comm. Margaret Saul, Jim Saul and Bub Hardy, Evans Head 21/9/04

¹³ Haughton-James & Manley 1995.

¹⁴ Hancock 1990: 62; Haughton-James & Manley 1995: 2.



Plate 4 Air Marshal Sir Valston Hancock K.B.E, C.B., D.F.C., R.A.A.F., Retired. First Commander of No.1 BAGS.

3.1.5 Operation of the No 1 Bombing and Gunnery School (No 1 BAGS), and the Air Observers School (AOS)

At its height, No 1 BAGS had some 70 Fairey Battle Aircraft and the extensive bombing and gunnery ranges established to the north and south of the village of Evans Head were in daily active use. In addition to the on-base training, Wirraway and Anson aircraft flew in from Amberley RAAF Base in Queensland for bombing and gunnery practice. No. 1 BAGS trained 5,500 RAAF personnel up to December 1943, most courses being of one month's duration. More than a thousand of these men were to be killed on active service.¹⁵

The Womens Auxiliary Australian Air Force (WAAAF) was established in Australia, based on the British model. The first intake of 320 WAAAF staff occurred in February 1941. A total of 27,500 women were to be recruited up to August 1945. The first WAAAF contingent to be based at Evans Head, consisting of Jean Robson and Sheila Spiers, arrived on 14 August 1941. They were followed by a large number of WAAAF women, who undertook work such as bomb-fall spotting and plotting, housekeeping and cleaning work, cooking, and transport driving. The base had a wide range of trades to support it, including, apart from the obvious building and aircraft maintenance trades, four bootmakers.¹⁶

Bomb-fall spotting and plotting were central functions of the base. As the 8.5 pound (3.85 kg) practice bombs hit the ground (or its target), the bearing of a small cloud-burst created by a stannic acid charge was simultaneously taken from two plotting tables located at 'quadrant marker huts'. The cross-bearings for each of a run of eight practice drops were telephoned through to the Plotting Office, where the fall pattern was transferred onto a map that was given to the pilot and bomb-aimer when they landed, providing instant feedback on performance. Eight bombs within 100m of the target was considered good going, as high explosive bombs would do significant

¹⁵ Haughton-James & Manley 1995: 2, 19.

¹⁶ Haughton-James & Manley 1995: 154, 24.



damage at that range.¹⁷ Air to ground gunnery was marked by counting holes in the ground-mounded targets, while air to air gunnery was marked by counting the holes made in a drogue sleeve towed (at some distance) behind a plane.

Perimeter defence of the aerodrome became a particular issue after the sweep of Japan into the Pacific islands. Light automatic arms were set up at points around the perimeter, and particularly along the beach front, where several gun emplacements were located.¹⁸ The machine gun pits were manned on a roster basis, which led to an embarrassing situation when an invasion scare occurred but most of the men rostered to gun duty had also been given weekend leave.¹⁹ The machine gun posts, of which one survives at the north-west corner of the aerodrome, and one above the bomb storage area at the Blue Pool, consisted of a cylindrical galvanised iron tank, lined with timber planks, sunk into soil with the top at ground level. A central pedestal supported the gun. The example at the aerodrome has the remains of what appears to be an iron roof or cap.

Night patrols out to sea by a Fairey Battle armed with two 500 lb bombs, looking for Japanese submarines, were a common occurrence. At nights when night flying was not happening, trucks were parked at intervals along the runways to prevent enemy planes from using them.²⁰ The lighting of the airstrip for night flying is still a little confusing. Hancock refers to having to land with wing-tip flares, in the absence of runway lighting.²¹ At a later time runway flares appear to have been used²², and oral evidence points to some form of gas lighting on the main runway.²³ Some gas pipping is said to have been dug up when the southern end of the runway was disturbed as part of the housing development, but the nature of the lighting system is still unclear.

The aeroplane armaments were maintained and tested on-base, and two sets of butts were located north of the remaining Bellman hangar, a set of two for heavy cannon and a set of three for .303 machine guns. They show up on air photos, but have been subsequently bulldozed flat, though locals recall finding bullets in the area as children.²⁴

As the threat of enemy action along the northern rivers increased, a dispersal airfield was established on an inland farm at Coraki, to allow at least half the base's planes to be sent away from Evans Head, but it was never used. Local oral evidence suggests that there were also some local dispersal bays off the main aerodrome, in what is now part of the village.²⁵ At that time, the height of the war in the Pacific, the Evans Head airfield was being defended by AIF and Volunteer Defence Corps (VDC) troops, and Commanding Officer Eric Nelson (C.O. from January to October 1942) had a defence post built for himself halfway up the base's water tank tower, from which to command any local action.²⁶

¹⁷ Haughton-James & Manley 1995: 14.

¹⁸ Hancock 1990: 72.

¹⁹ Haughton-James & Manley 1995: 75.

²⁰ Haughton-James & Manley 1995: 15; McGovern, S & Philp, J (Manley, S. & Haughton-James, J.), 1993. *'As we knew it': Transport Section, RAAF Base, Evans Head, NSW, 1942-43*. Wren Print, Brisbane: 21

²¹ Hancock 1990: 72.

²² McGovern & Philp 1993: 21.

²³ Pers. Comm. Margaret Saul, Jim Saul and Bub Hardy, Evans Head 21/9/04; Richard Gates, Evans Head, 22/9/04

²⁴ Pers. Comm. Margaret Saul, Jim Saul and Bub Hardy, Evans Head 21/9/04

²⁵ Pers. Comm. Margaret Saul, Jim Saul and Bub Hardy, Evans Head 21/9/04

²⁶ Haughton-James & Manley 1995: 40.



The service men and women stationed at No 1 BAGS, in some cases permanently but in most cases for short training periods, interacted extensively with the Evans Head community and environment. Married couples and from time-to-time WAAAFs were housed in the village (such as at the surviving 'Mandalay' flats). The beach was both an official exercise and off-duty recreational area, with RAAF personnel providing the majority of the local life saving club patrols. Weekend recreation included drinking at the Pioneer Hotel in Evans Head (later renamed the Illawong), and leave in Lismore, with occasional tension being recollected between air crew and ground crew at Evans Head.²⁷ To enable servicemen and women to enjoy the beach and other recreations, Hancock introduced local daylight saving, to give extra daylight time after work hours.²⁸

Life at the base was a basic version of life in a town. Accommodation was provided in simple unlined timber huts, in which service men and women slept on straw palliasses, and eating in communal messes that were segregated by rank.²⁹ Recreation huts were provided, and the base had its own cinema. A hospital (protected by a sandbag wall), garbage collection service, sewerage plant and playing fields were included in the bases municipal arrangement. The WAAAF transport drivers were engaged constantly in ferrying mail, stores and recruits from the railway stations at Casino or Lismore to Evans Head and back, shuttling back and forth between the north and south bombing ranges, or collecting heavier goods from Woodburn wharf.

In December 1943 the Bombing and Gunnery School was disbanded. No. 1 Air Observers School (AOS) was transferred from Cootamundra to Evans Head in the same month, with a complement of 1,496 personnel and trainees. The AOS trained 630 crewmen before the end of the war, using Ryan, Tiger Moth, Wackett and Anson aircraft.³⁰ The EATS program came to an end in June 1944.³¹

In June 1945 the AOS left Evans Head, and a Care and Maintenance Unit (CMU) was established, which maintained the base until August 1947, when it was transferred to the Department of Civil Aviation.³²

Some notable people spent significant time at No. 1 BAGS during WW II including the famous Australian actor 'Chips' Rafferty and flying hero Leonard Fuller, DFC, who successfully landed two aircraft that had collided in mid-air.

²⁷ Haughton-James & Manley 1995: 25.

²⁸ Hancock 1990: 72.

²⁹ Straw from used palliasses was dumped on the block where Margaret Saul lives, and was used as mulch. Pers. Comm. Margaret Saul, Jim Saul and Bub Hardy, Evans Head 21/9/04

³⁰ Haughton-James & Manley 1995: 3.

³¹ Brew 2001: 21.

³² Haughton-James & Manley 1995: 3.

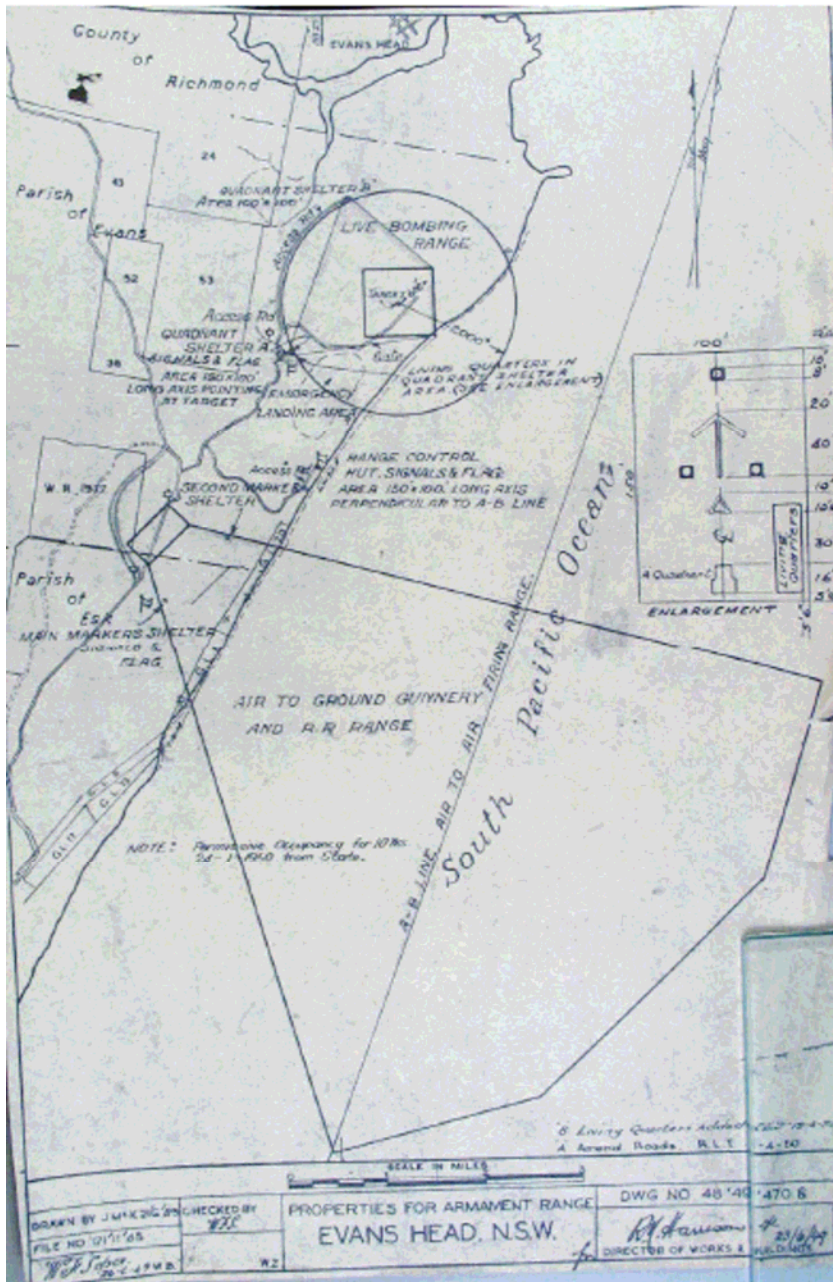


Plate 5 Plan illustrating the location and layout of the South Bombing Range. The village of Evans Head and the aerodrome are located at the very top centre of the image (Source: NAA; A705, 171/24/50).

3.1.6 After World War Two

Removal of buildings from the airfield took place through the 1950s. All but three of the hangars had been removed by 1955, and some aircraft remained parked at the aerodrome until 1958. Most of the huts were removed in the early 1950s, huts being moved to Camp Koinonia in Evans Head in about 1952-3, and the Scout Hall in Evans Head was moved from the Doonbah wireless station in about 1957-8. The Sergeants Mess was moved to Lennox Head Department of Education



camp.³³ The Bellman Hangar now used as the Council's works depot was moved to the Evans Head Aerodrome from Coffs Harbour.

The hangars were dismantled and taken away on trucks, while the timber huts were sawn into sections and moved on trucks, or dragged on log sledges. The huts at Camp Koinonia illustrate the sectioning of huts, as they are shorter than the huts as they existed on the base.

Following WW II the aerodrome was used for commercial airline services, Butler Air Transport operating there from about 1947, but during the mid-fifties the aerodrome was closed to commercial flights and its activities were transferred to Casino. Queen Elizabeth II flew into Evans Head during her Royal visit to Australia in 1954. Since that time it has been used for a variety of purposes such as an emergency landing facility for aircraft, including the RAAF; an aircraft storage facility; ordnance depot; and a staging base for supplies during floods over many years. In 1985 the main runway was lengthened to allow the aerodrome to be used for Fokker Friendship services for about a six-month period while the Casino aerodrome was being upgraded.³⁴

The southern bombing range has been maintained as a practice bombing range by the RAAF, planes flying in from Amberley Base in Queensland for practice runs. Evans Head itself grew after the war as a coastal holiday resort town. The river was improved under the NSW Department of Works fishing port program, with breakwaters being built between 1959 and 1963, and the boat harbour constructed between 1966 and 1969.³⁵

The Department of Defence handed over the aerodrome to the Department of Transport (DOT) in 1952. In 1992 ownership of the aerodrome was passed to Richmond River Shire Council from DOT under an Airport Local Ownership Plan (ALOP) agreement³⁶. The Commonwealth does not appear to have undertaken regular maintenance of the one surviving Bellman hangar, so Council inherited a structure that had been gradually decaying since the 1950s. Council has since downgraded the 'flying' status of the aerodrome but it is still used by many different types of aircraft. It is currently the site of the annual Great Eastern Fly-In for aviators from around Australia, a landing ground for emergency services and other private aviators. There are significant written historical records on the Evans Head RAAF Base, which needs to be more fully investigated. Much of it is in the National and State Archives.³⁷

In the late 1990s a section of land at the southern end of the aerodrome was subdivided for housing with the approval of the Commonwealth Department of Transport (Letter dated: 3 May 2000) and in accordance with Clause 2(p) of the Deed of Agreement between Richmond River Shire Council and the Commonwealth dated 29 July 1992. The subdivision occupies the southern end of runway 14/32 and the southern section of the base accommodation area. A large part of the base accommodation area has been redeveloped as an industrial estate.

³³ Pers comm. Richard Gates, 8/12/04

³⁴ Pers. Comm. Margaret Saul, Jim Saul and Bub Hardy, Evans Head 21/9/04

³⁵ Coltheart, L. 1997. *Between wind and water: a history of the ports and coastal waterways of New South Wales*, Hale and Iremonger, Sydney: 170-171.

³⁶ Richmond Valley Council (previously RRSC) is the current owner of the site and structures.

³⁷ NSW Heritage Register citation



Historic Themes

Table 1 indicates the national, state and local themes relevant to the history and assessment of the Evans Head aerodrome.³⁸

Table 1 Historic Themes

Australian Historic Theme	New South Wales Theme	Local Theme
1. Environment - Tracing the evolution of a continent's special environments	Environment - naturally evolved - Activities associated with the physical surroundings that support human life and influence or shape human cultures.	Cultural: Plains and plateaux supporting human activities -
3. Economy - Developing local, regional and national economies	Environment - cultural landscape - Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings	Landscapes of military activities -
3. Economy - Developing local, regional and national economies	Technology - Activities and processes associated with the knowledge or use of mechanical arts and applied sciences	Technologies of new building materials and techniques -
5. Working - Working	Labour - Activities associated with work practises and organised and unorganised labour	Working for the defence services -
7. Governing - Governing	Defence - Activities associated with defending places from hostile takeover and occupation	Training military personnel -

³⁸ Based on NSW Heritage Register citation



4. Physical Evidence

4.1 Identification of Existing Fabric

For such an extensive wartime facility as the Evans Head Memorial Aerodrome, relatively little built fabric survives intact and in situ. The surviving evidence within the Aerodrome boundaries consists of:

- ▶ Four runways (one extended in 1985 beyond WWII boundary) with associated drains, and concrete foundations/floor associated with small support structures;
- ▶ Taxiways and apron parking areas adjacent to former hangar sites, with perimeter drain;
- ▶ One Bellman hangar in situ within the northern hangar area;
- ▶ The sites of five former hangars within the northern hangar area, with tarred aprons, fire hydrants, drains and sump grates (with partial remnants of another two hangar sites north west of the Council Work Depot);
- ▶ One machine gun emplacement at the northwest corner of the aerodrome, on Woodburn Road;
- ▶ Aerodrome perimeter drain;
- ▶ Several dump areas, mostly post WWII;
- ▶ Two modern small hangars; and
- ▶ A memorial plaque erected 1997.

Associated surviving fabric immediately adjacent to the Plan of Management area includes:

- ▶ Two in situ WWII timber buildings used as shower/toilet blocks, across Memorial Airport Road from the Bellman hangar;
- ▶ A relocated Bellman hangar, on an original hangar site, used as the Council Works Depot;
- ▶ Two in situ WWII timber buildings at 11-15 Canberra Road, (Evans Head Cabinet Makers);

4.1.1 Runways, Taxiways and Aprons

The runways and taxiways initially consisted of a gravel base underlain by sand. Each taxiway had within its space a large grassed oval where aircraft parked to be refuelled (10,000 gallon petrol tanks were located beneath each taxiway). Eventually the taxiways and runways were sealed with bitumen in late 1940/early 1941 as a response to erosion prevention and damage to engines by sand ingestion.

The four runways are in varying states of repair. Drains run each side of the runways, with grated sumps at regular intervals. The runways that are maintained by Council and open to aviation use are runways 9/27 and 18/36.

Runway 18/36, is well sealed, its original length of 1000m having been extended by 300 m to the north in 1985, which extends beyond the WWII boundaries of the aerodrome. The well-tarred central strip and extended runway are 18m wide while the original strip is 47m wide. Runway 18/36 is currently longer than any of the original runway lengths.

Runway 14/32 is sealed with tar, but has grass growing through in sections. A section at the southern end was decommissioned with Commonwealth Department of Transport approval to



make way for housing, and a longer section is broken up. Two concrete foundations are located one on each side of the northern end of the strip. Its original length was 1200m.

Runway 09/27 is sealed with tar, but has grass growing through in sections its original length was 1100m.

The fourth cross-runway (06/24) has a very deteriorated sealed surface, and concrete foundations lie in its alignment beyond where it crosses 09/27. Runway's 06/24 original length was 1200m.

Two of the taxiways off runway 18/36 to the Bellman hangar apron survive, one in good condition, being re-tarred for commercial use in the 1980s and maintained since, and the other with a deteriorated surface. Two more taxiways lead off the southern end of runway 14/32, but these are more deteriorated. The tar on the older sections of taxiway and associated aprons and hard-stand off runways 18/36 and 14/32, related to the removed hangar areas, is deteriorated.

4.1.2 Surviving Bellman Hangar

Norman Stuart Bellman designed the Bellman Hangar in 1936 with the purpose of being an easily transportable and hardier hangar than the preceding Bessonneau type. The Bellman was built in bulk with over 400 alone being used in Great Britain, mainly in reserve and training aerodromes. Many were built overseas as well for the Dominion Air Forces in their own build up for war, including approximately 243 by the Australia Department of Defence.³⁹

Hangar number 160 (the surviving hangar) at Evans Head Memorial Aerodrome was used for aircraft maintenance during the war and after the war stored aircraft parts which were ready to be disposed of by Defence.⁴⁰

The surviving Bellman hangar consists of a 34.22m x 29.47m building with prefabricated segmented steel frames supporting a corrugated galvanised iron (CGI) ('Tecta-Tank' iron) cladding. The CGI cladding is attached by hook-ended bolts to light angle-iron wall girders and roof purlins connected to the frames.

The wall and roof frames are made up of sections of open-web truss consisting of 'L' section iron joined back-to-back to form 'T' section top and bottom cords, linked by perpendicular and diagonal angle iron struts. These pre-fabricated sections (about 2m long) and joined by 'L' shaped plates bolted to the outer cords and each other, are joined together to create continuous wall and roof frames.

At each end the end frames support top-rails for rolling doors. The bottom rails are set into the ground forming the threshold of the hangar. The doors originally consisted of six doors made up of four large panels bolted together, each with a frame of angle iron with diagonal cross-braces running corner to corner, and clad with CGI. Five doors, in poor condition, remain on the northern side of the hangar, the sixth having been replaced with a CGI infill panel, while on the southern wall each end section has been filled with CGI wall, and four new doors installed in the centre. Both end frames are very corroded, and are supported by timber pole props.

Much of the cladding CGI appears to have been replaced, though sections of original iron can be recognised. A metal annex has been added on the eastern side, but has not resulted in major damage to the original Bellman structure, though the CGI cladding on that side is replaced with a

³⁹ *Ibid.* p.101. in Ainsworth Heritage, 2007

⁴⁰ Ainsworth Heritage, 2007



cement block wall. The uppermost cladding sheets along each side of the hangar have been replaced with clear fibre-glass/acrylic panels, allowing light penetration.

4.1.3 Former Hangars

Initially hangars were used to store aircraft when aircraft were made of wood and fabric, but as all-metal construction became the norm for aircraft, hangars were used for maintenance and parts storage sheds with the aircraft parked on the tarmac. Hangar dimensions also made them eminently suitable for the storage of large, bulky and fragile aircraft parts.⁴¹

By 1942, all 17 Bellman Hangars were erected and operational at Evans Head; hangar 144 was used as a Bulk Store and the other 16 hangars were all used for aircraft maintenance.⁴²

The Northern Hangar Area forms part of the Former Hangar Precinct (within the plan of management area) and consists of four former hangar sites the partial site of a fifth hangar, and the surviving Bellman Hangar (immediately to the north east).

The Southern Hangar Area also forms part of the Aerodrome Hangar Precinct and consists of the partial remains of two more hangar sites, which are located immediately south of the dividing fence, extending to the Council's Work Depot hangar, which occupies another hangar site (see Figure 3). The sites of eight hangars appear to have been substantially disturbed if not destroyed by the construction of the Council Works Depot yard and the ripping of adjacent areas for planting.

The hangar sites are in pairs, separated by areas of tarred apron 35 m wide, and wider where the hangar alignment angles to the east towards the Council Work Depot. The floors of the hangars are hardened and tarred, with varying degrees of deteriorations. Tie-down cables used for the Great Eastern Fly In are aligned along several of the door-rail lines.

The hangar sites are marked by the adjacent tarred apron areas (now in a deteriorated condition), hardened strips marking the alignment of the door rails at each end of the hangars, and by a drain sump grate at each corner of the hangar site. Two fire hydrants survive, one located between the surviving Bellman Hangar and the next hangar site south, the other adjacent to the first hangar site south of the surviving Bellman Hangar.

The hangar site immediately west of the surviving Bellman Hangar is partly occupied by a small metal hangar (9 x 22m) built in about 1996 and used for the storage and maintenance of small aircraft.

4.1.4 Drains

During the late 1930's and early 1940's airfield drainage was established. Drainage measures included open concrete drains, open rubble drains and closed drains.⁴³

A series of drains run east-west across the hangar and apron areas, each drain aligned with the door-ends of each hangar. Sump grates are located at each corner of each hangar site. These drains appear to run to the west, where they connect to a major drain running along the western side of the hangar complex, approximately 44m west of the alignment of the western hangar sites. This main drain is capped by cast iron grates for its entire length adjacent to the hangar complex.

⁴¹ Ainsworth Heritage, 2007

⁴² *Ibid.*, p.8. in Ainsworth Heritage, 2007

⁴³ Ainsworth Heritage, 2006



Drains run each side of the runways, marked by sump grates at intervals. It is assumed that these drains lead to the deep open ditches on the original aerodrome perimeter, and thence into the natural drainage pattern that runs to the northeast and the west.

4.1.5 Machine Gun Emplacement

Following the entry of Japan into World War II, the defence of Evans Head Memorial Aerodrome was heightened. Extra defences included light automatic arms that were set up as machine gun emplacements at points surrounding the aerodrome, with additional emplacements along the beach. A Foreign Airport Description sheet for Evans Head notes that the defences comprised 19 machine-gun pits, of which seven were operational and fitted with .303 Vickers.⁴⁴

One machine gun emplacement was identified (thanks to Richard Gates assistance) at the western corner of the aerodrome, just inside the fence along the Woodburn Road. Another machine gun pit, in better preservation, was inspected on the ridge adjacent to the Blue Pool bomb storage area, outside the Management Plan area.

The machine gun pit at the aerodrome consists of a galvanised corrugated iron cylinder approximately 2m diameter, sunk into a low artificially created mound. The top of the galvanised iron cylinder is slightly above ground level. The base of the cylinder is a floor and raised ring of concrete, in the centre of which is a galvanised pipe stanchion with fittings to mount a machine gun. The Blue Pool gun pit is internally lined with timber planks, and this appears to have rotted or been removed from the aerodrome example. The aerodrome pit has the remains of what appears to be a light sheet iron cap or lid, but the original form of this is not discernable in the heavily corroded remains.

The concrete and angle iron foundations of a small building are located adjacent to the pit, possibly from a guard house.

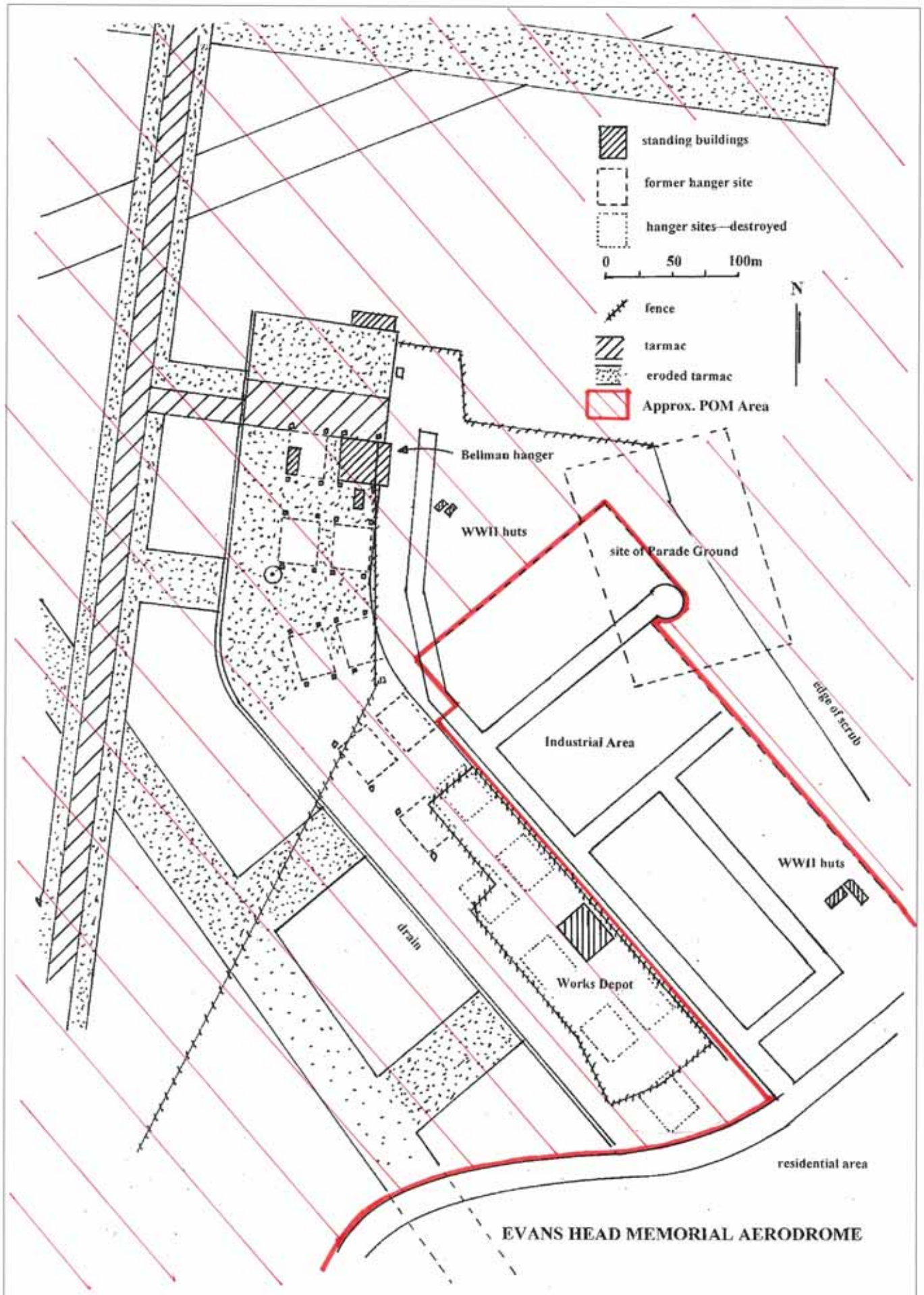
4.1.6 Other Features

Other features in the Management Plan area are:

- ▶ A 10 x 31m metal hangar across the apron area from the northern end of the surviving hangar, built in 1994;
- ▶ A 9 x 22m metal hangar located west of the surviving hangar, on the site of a removed Bellman, built in about 1996 and used for the storage and maintenance of small aircraft;
- ▶ A memorial plaque erected in 1997, and related flagpole, rockery and plantings. The plaque is a bronze plate on a boulder, with the inscription:

'Plaque of remembrance. Dedicated to the memory of all members of the RAAF, WAAAF and army units who served at the RAAF station at Evans Head between 1939-45. Lest We Forget'.
- ▶ Dump areas to the north of the surviving hangar. Immediately north of the 1994 hangar are two door panels from a Bellman hangar. Further west are several car bodies of varying ages, none appearing to be WWII in vintage.

⁴⁴ Ainsworth Heritage, 2006



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**SITE
 OF FORMER HANGERS**
 figure 3.



4.2 Analysis of Existing Fabric

The following is an analysis of the existing fabric, focussing on the presence and level of cultural significance of individual elements and groupings of elements.

4.2.1 Runways, Taxiways and Aprons

The surviving runways and associated taxiways and aprons reflect the configuration of the aerodrome as it operated in WWII to a significant extent. In conjunction with the surviving Bellman hangar, the runways and associated taxiways and aprons are the most significant remains of the RAAF use of the place, and demonstrate the extent and scale of the WWII construction and operations. The continued existence of the runways as recognisable elements in the aerodrome landscape is important in maintaining this significance, even if some are not used for current aviation purposes.

4.2.2 Surviving Bellman Hangar

The surviving Bellman Hangar is historically significant because of its association with Sir Valston Hancock. Sir Valston Hancock was one of Australia's most distinguished airmen who rose to become Chief Air Marshal of RAAF personnel. He was responsible for bringing Bellman Hangars to Australia. The British-designed hangars were modified and built by BHP under the guidance of Sir Valston Hancock, Director of Works for the RAAF at the time, who was also responsible for siting and construction of the Aerodrome. He subsequently became the base's first commanding officer.

The surviving Bellman hangar is the last of 17 built on the aerodrome. The hangar is the most significant built component in Evans Head associated directly with the WWII occupation of the Aerodrome. While in relatively poor condition, the hangar is largely intact, and appears capable of conservation.

The Council Works Depot hangar has been relocated twice, its original location is not known, and its integrity is compromised by later works. It is also now largely divorced from the runway and taxiway system by recent developments and destruction of tarmac surfaces. While the Council Works Depot has some significance as an example of a Bellman, its associations with the Evans Head Aerodrome are substantially diminished.

The Thematic study of WWII Aerodromes seems to confuse the design of the Bellman hangars, which are an all-steel construction, with laminated timber truss structures, which were also developed during WWII.⁴⁵ This confusion has found its way into some other recent descriptions of the place, including the Heritage Council citation. The Bellman design does not seem to have been one aimed at reducing the use of steel – rather it was to enable rapid and simple erection of easily transported prefabricated components, made necessary by the massive and urgent building demands of the EATS program.

⁴⁵ Brew, A. 2001. 'Thematic study: World War II aerodromes and associated structures in New South Wales', Report for Deakin University and the NSW Heritage Office, (also located on Heritage Office website: www.heritage.nsw.gov.au): 43-44.



4.2.3 Former Hangars

The sites of five former hangars south and west of the surviving hangar, are still clearly seen on the ground, because of the pattern of tarred apron, door-rail hardened areas, and drain grates. This evidence creates an easily readable site that indicates the scale of the hangar complex and individual buildings, and has significance in its own right. This has implications for future use of the former hangar area north of the Council's Works Depot, including implications for any future buildings constructed there.

4.2.4 Drains

The drains through the hangar area and along the runways appear to be in fair condition, and where visible through grates, appear to be clear of silt. The numerous drain sump grates and the long grating along the apron edge are prominent elements of the aerodrome landscape, and are key indicators of the pattern of the hangar development. The drain grates, indicating the extent of the drainage system, demonstrate the extent of the work undertaken to construct the runways.

4.2.5 Machine Gun Emplacement

The machine gun emplacement is a rare survivor of an important element of the aerodrome, being the last of a claimed eight pits that protected the perimeter during WWII. The pit, together with that at the Blue Pool bomb storage area, is an important demonstration of the wartime status of the aerodrome, as a major RAAF base and as a potential target for Japanese sea-based raids. The pit is little known, and while having potential for interpretation, in the first instance needs conservation and protection.

4.2.6 Other Features

The modern two hangars have no individual heritage significance as buildings, though their use for aviation activities helps maintain the historical use of the place.

The memorial plaque and related flagpole, rockery and plantings have importance to the local and WWII veteran communities, in commemorating the use of the Aerodrome as a RAAF training base.

4.2.7 Archaeological Potential

The hangar sites (including the surviving hangar) have relatively limited sub-surface archaeological potential, in that there is likely to be little or no sub-surface deposit due to the presence of tarred aprons around the buildings and hardened floors to each hangar, which existed for the entire period of use.

The experience of locating munitions and what was interpreted as remnants of a gas lighting system at the end of runway 14/32 indicates that some archaeological potential exists at the peripheral areas of the aerodrome, where material might have been dumped, and along at least runway 14/32 where further evidence of the lighting system might be located.

The areas to the north of the surviving hangar where hangar doors and car bodies have been dumped do not appear to have associated deposits, and none of the dumped material appears to date from the period of RAAF use of the aerodrome.



North of the surviving hangar there is some potential for further munitions being located, associated with the test butts. However, the butts have been bulldozed flat, and any material is likely to be substantially churned and disturbed in the sandy soil.

Some archaeological potential might be expected in the areas formerly occupied by residential huts, hospital and administrative buildings. However, the majority of this area has been disturbed by the development of the industrial area, and by the expansion of residential housing at the southern end, and much of the remainder to the north has been disturbed by several separate material stockpiling incidents as well as the construction of the industrial area in late 90's and early 2000's.

Moveable Heritage Items

Movable heritage refers to heritage items not fixed to a site or place, natural or manufactured item or group of items, such as aircraft anchors. Items of movable heritage should remain on site whenever possible. If they have to be removed from the site they should be marked with their name, purpose and where they are from (item provenance) to ensure that the item does not get separated from their history.

Moveable Heritage Items identified at the site by Ainsworth Heritage (2006) include:

- ▶ Concrete Bollards – various, scattered through Northern Hangar Area, 200mm diameter;
- ▶ Drain Gates – various, scattered through Northern Hangar Area near modern Hangar and Bellman Hangar;
- ▶ Concrete bollards – Scattered around 25 Yard Range and area south of surviving Bellman Hangar;
- ▶ Gas Pipes – Scattered near taxiways and fence line;

These items of movable heritage have high historic significance and represent the aviation function of the site. They should be kept at the site and used to interpret the World War II aviation history.

The following movable heritage items have been identified as low archaeological significance (Ainsworth Heritage, 2006):

- ▶ Dump – north of Bellman Hangar may contain items of movable heritage; the material contained in the dump should remain on site whenever possible; and
- ▶ Cast iron pipes (former RAAF rising main) – c.5 cast iron pipes, 300mm (12").

Aboriginal Heritage Potential

An indigenous archaeological assessment, carried out in 1997 for a large portion of the aerodrome, recorded no objects of indigenous cultural significance. However, the investigation concluded a potential for sub-surface indigenous archaeological material and recommended archaeological monitoring by an aboriginal representative for any excavation works on the site.⁴⁶

Aboriginal occupation and use of the immediate subject site is likely to have been minimal and it is probable that this low-lying, former swamp and heath area was subject to only minimal visitation. As a consequence, Aboriginal impacts on the landscape prior to European settlement and development are likely to have been low impact with minimal changes to the natural landscape. An exception to this may have been Aboriginal firing of the landscape to aid in the harvest of fauna

⁴⁶ Appelton, 1997 in Ainsworth Heritage, 2006



(especially marsupials) and the promotion of certain desirable vegetation regimes including open areas of grassland.⁴⁷

Natural Heritage Potential

Evans Head Memorial Aerodrome comprises a largely level area of land, with low grasslands surrounding the airfield and dense vegetation covering the remainder of the site. The vegetation comprises heath land with areas of Swamp Eucalypt forest.⁴⁸

A flora and fauna assessment undertaken for the site recommended that: 'The northern half of the airfield be protected from further development due to its similar conservation values to land within Broadwater National Park'. In addition, the northwestern portion of the site contains a portion of a Coastal Wetland (No. 132), which is protected by State Environmental Planning Policy No. 14, and should be conserved because it is an important natural environment (see Sections 6.4.2 and 6.4.3 for further details).

⁴⁷ Ainsworth Heritage, 2006

⁴⁸ Ainsworth Heritage, 2006