

**Unloved Modern
Air Traffic Control Towers in Australia**

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LOVELL CHEN

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National Air Traffic Control Towers Heritage Assessment

Consultants: Lovell Chen Pty Ltd

Client: Airservices Australia

Project duration: 2007-9

Scope: Heritage assessment of 29 ATC towers across Australia (1940-1997) under the *Environment Protection and Biodiversity Conservation Act*





Type 1 - Raised timber booths



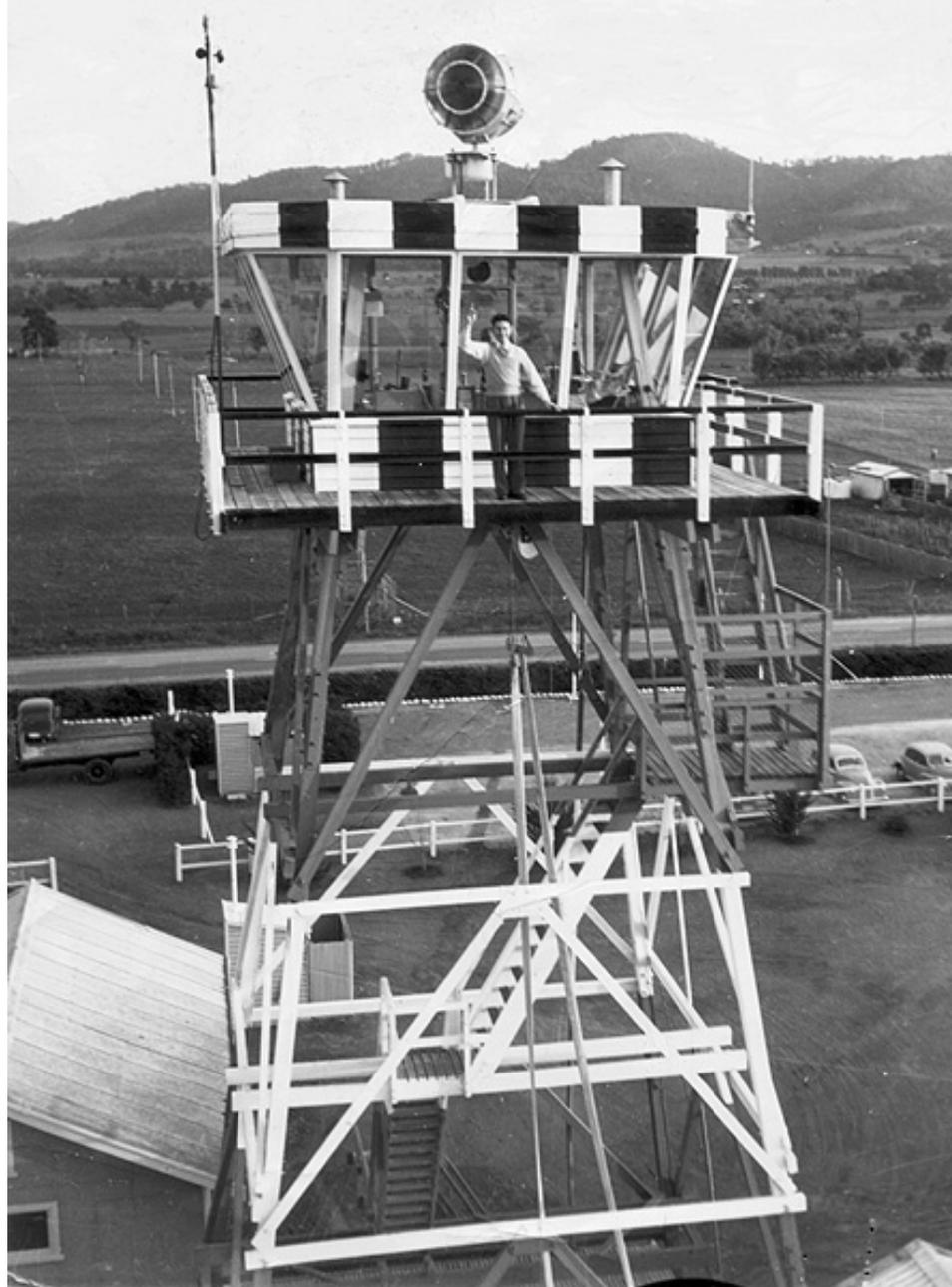
London (Croydon) airport, early 1920s, complete with signal flag and searchlight.



Sydney Mascot (NSW) c. 1936-7. The coloured cane sphere was a signalling device.



Essendon (Vic) in front is a 1930s booth added to Aero Club building, behind it is a freestanding tower constructed during WWII

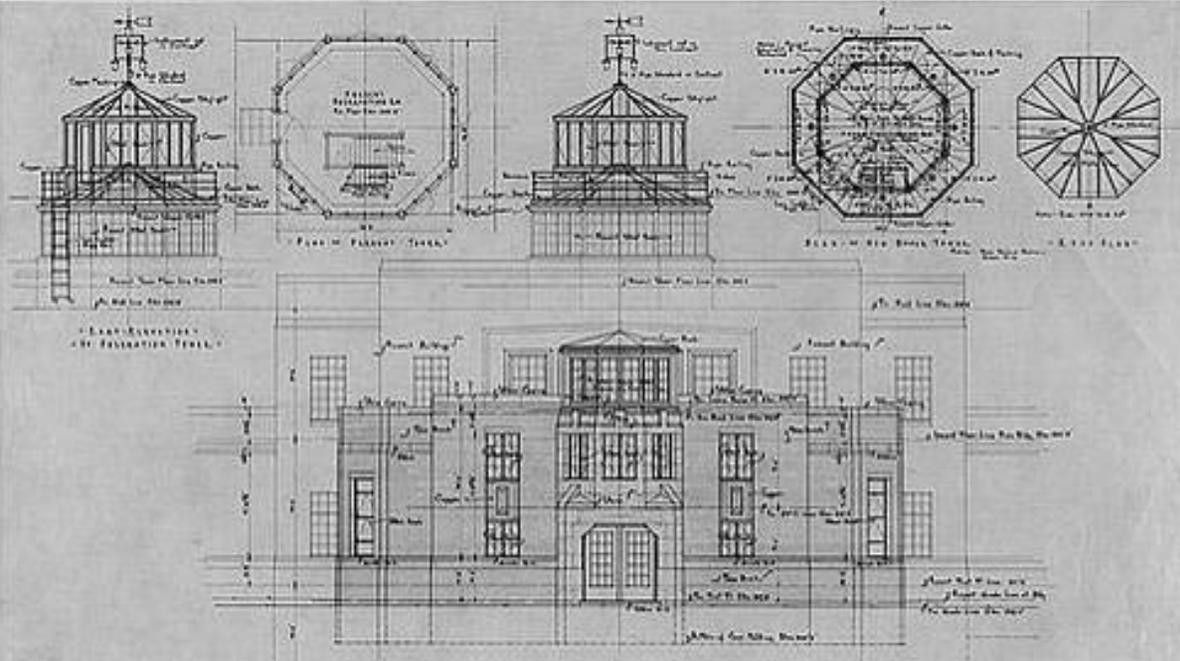


Hobart (Tas) 1946-8 with cabin mounted beacon



Moorabbin (Vic) c. late 1940s

Type 2 - Integrated Terminals



Cleveland Hopkins Airport (Ohio, USA) 1929. Integrated terminal and ATC control building surmounted by circular cabin

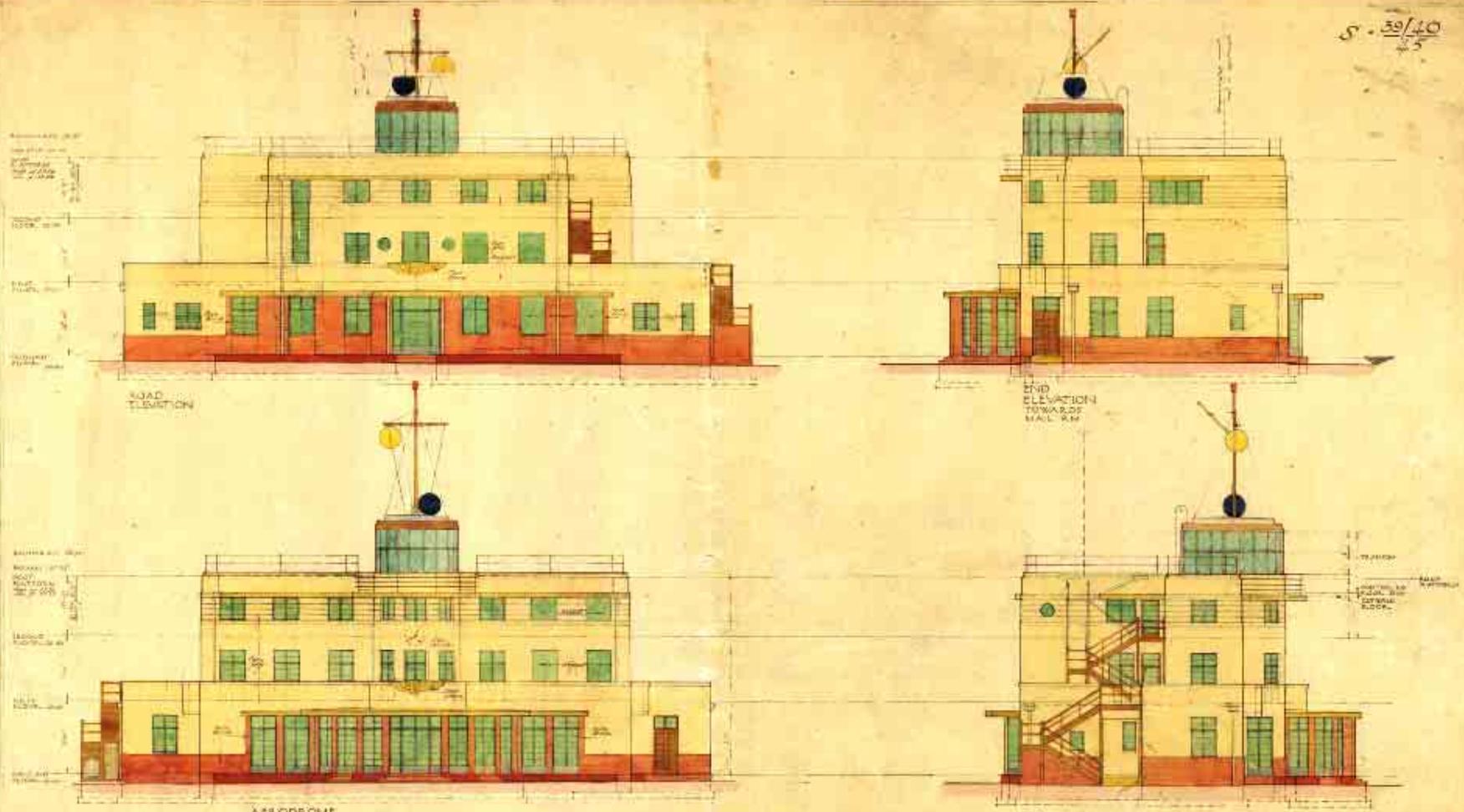


Bagdad (Iraq) c. 1932
Liverpool (UK) c. 1933-5
Birmingham (UK) 1939



Newark (New Jersey, USA) 1934

S. 39/40
#5



ROAD ELEVATION

END ELEVATION TOWARDS MAIL RM

AERODROME ELEVATION

END ELEVATION TOWARDS STAFF BUFFET

ARCHFIELD - AERODROME -
- BRISBANE QLD.

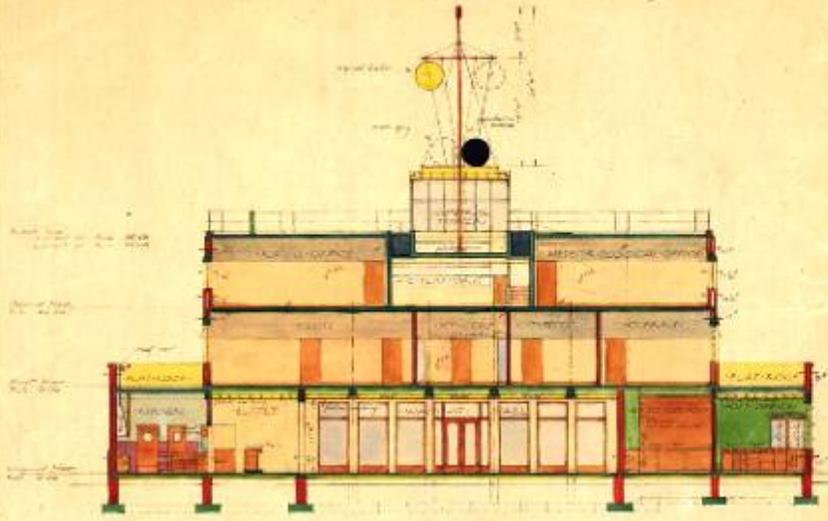
Archfield
 ARCHFIELD
 ARCHITECTS
 4, BRISBANE ST.
 BRISBANE, QLD.
 W 7423
 6. 3. 40.

PROPOSED CONTROL BUILDING FOR
CAPITAL CITY AERODROMES

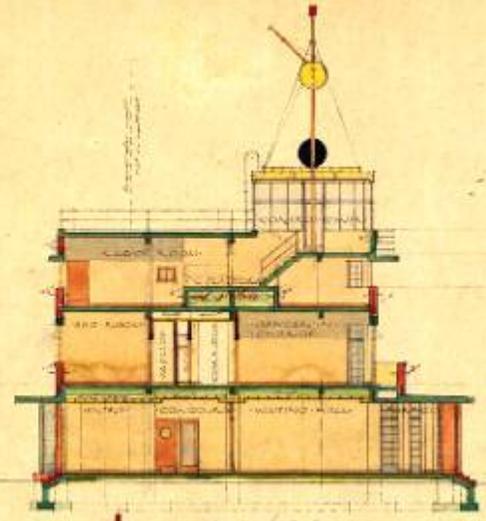
SHEET 4	DESIGNED BY S. W. ARCHFIELD	SCALE 1:1250	DRAWN BY A. N. ...
	PLAN NO. 3.28		

Proposed Control Building for [Australian] Capital City Aerodromes, 1940

S-39/40
45



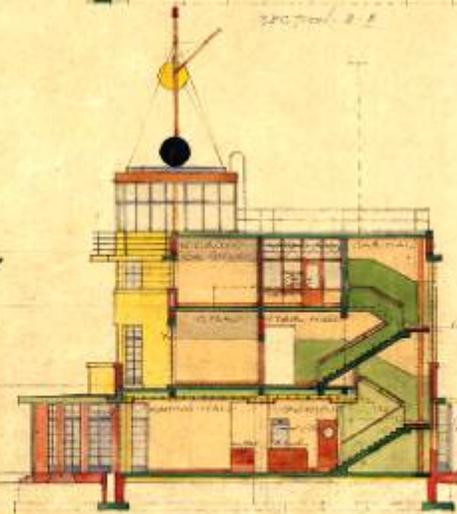
SECTION - A-A



SECTION - B-B



SECTION - C-C



SECTION - D-D

ARCHERFIELD - AERODROME -
DUNEDIN - GLD
W/422
6-8-40

PROPOSED CONTROL BUILDING
CAPITAL CITY AERODROMES
SECTION SHEET

3
Scale 1/8" = 1' - 0"

Proposed Control Building for [Australian] Capital City Aerodromes, 1940



Sydney (NSW) Ops & Admin building, 1940, now with cabin removed and building integrated into broader airport complex



Lodestar VH-BAG of Aircrafts Pty Ltd at Archerfield in 1947. Photo: Jack Petersen



Archerfield (Brisbane, Qld), 1940, survives but with cabin removed



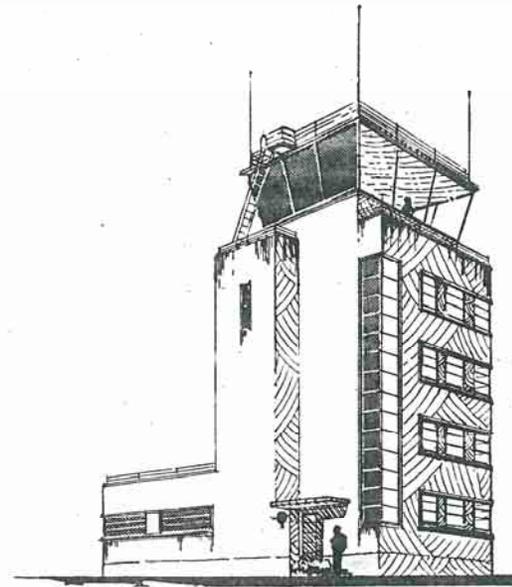
Parafield (Adelaide, SA), 1940

Type 3 - Cabin on square service block (1950-1976)



Munich (Germany) 1941, nine-storey tower with cabin
above London-Heathrow (UK) 1953 (photograph 1997)

New Control Tower Design



1951 – Department of Civil Aviation



Sydney 3 (NSW) 1953, demolished 2005



Essendon (Vic) 1956



Hobart and Launceston towers (Tas) both completed in 1958



Brisbane (Qld) c.1959 – Rockhampton (Qld) 1961



Adelaide (SA) 1957, integrated terminal variation



Jandakot (WA) 1965, Bankstown (NSW), 1970, both extant



Alice Springs (NT) 1968, extant, Cairns (Qld) 1970-71, partly demolished



Port Moresby (PNG), c. early 1970s

Type 4 - Perimeter frame towers (1972-1986)



Moorabbin (Vic) 1977, Adelaide (SA) 1981, Albury (NSW) 1983

Type 5 - Column form (late 1960s-present)



Washington-Dulles International, Chantilly, Virginia (1958-60), designed by Eero Saarinen

Control tower at Charles de Gaulle Airport, Paris, designed by Paul Andreu (1974)



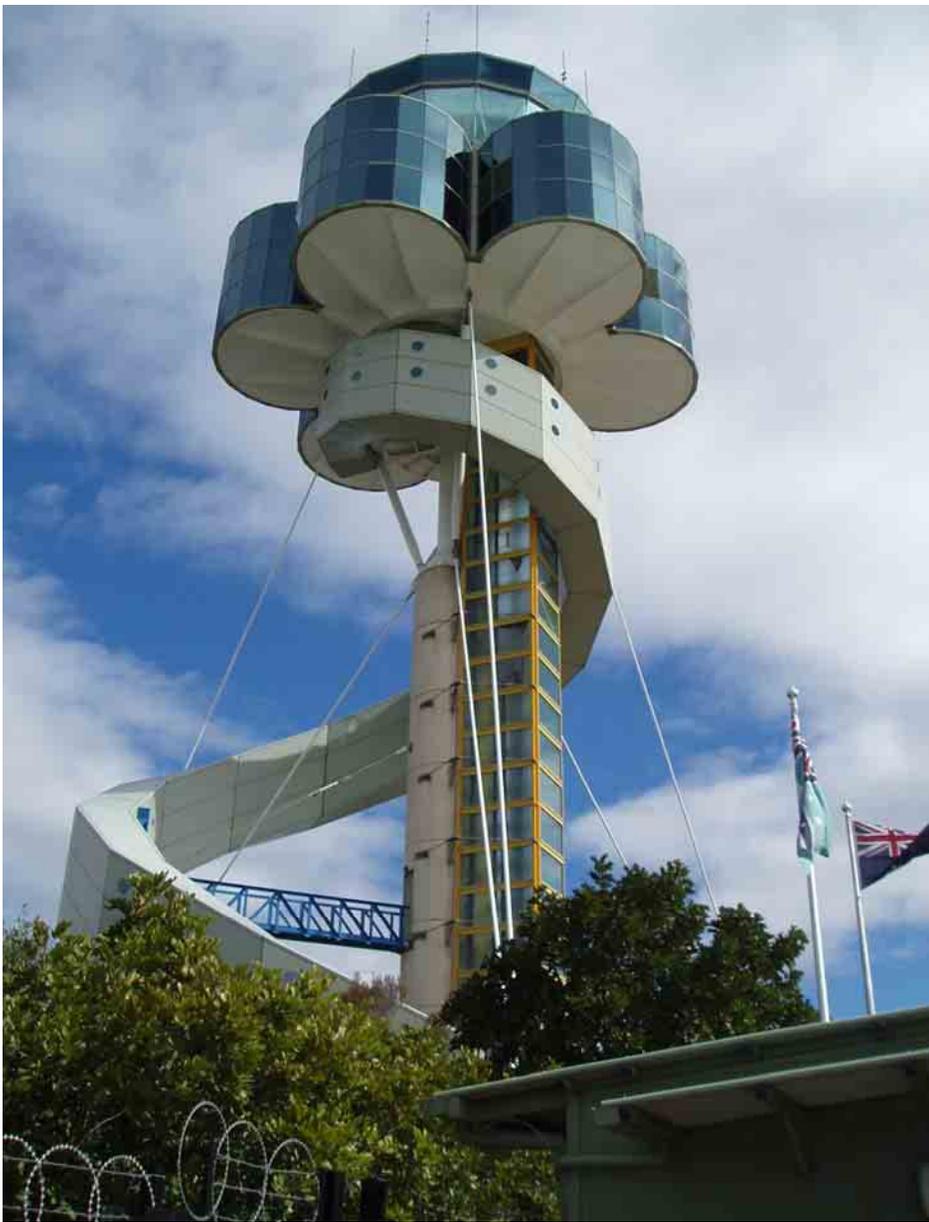
Melbourne (Vic) commissioned 1969, extant



Perth (WA) 1986, Brisbane (Qld) 1988, both designed by private sector architects with the Department of Housing and Construction



Regional versions of the column typology, Mackay (Qld) 1972, Archerfield (Qld) 1975 and Cairns (Qld), 1995, all extant



Sydney 5 ATC tower (NSW) 1996 by Ancher Mortlock & Woolley (designer Ken Woolley)



Heathrow control tower (2007), London, a cable-stayed tower designed by Rogers Stirk Harbour + Partners

Assessment

CHLCriterion	Significance indicators	Threshold indicators (CHL)	Application in study
(a) importance in the course, or pattern, of Australia's natural or cultural history;	association with: <ul style="list-style-type: none"> • significant event, political, economic or social process • significant phase in the development of civil aviation • significant development in the provision of air traffic control services 	<ul style="list-style-type: none"> • Distinctive / exceptional • Integrity • longevity • nature and extent of association 	<p>Yes</p> <p>Association of some towers with key phases in civil aviation and the provision of air traffic control services</p> <p>Early examples of standard ATC forms</p> <p>Relationship of towers to the historical development of individual airport complexes not a major consideration. Most towers are related to a major phase of expansion at their airports. Not considered to elevate significance to CHL level.</p>
(b) possession of uncommon, rare or endangered aspects of Australia's natural or cultural history;	Rare example of a particular typology of control tower. Rare example of significant technology associated with air traffic control.	<ul style="list-style-type: none"> • in state / national context 	Yes, early surviving towers from 1940s and 1950s
(c) potential to yield information that will contribute to an understanding of Australia's natural or cultural history;	Potential information about: <ul style="list-style-type: none"> • air traffic control operations • associated technology 	<ul style="list-style-type: none"> • earliness - rarity - intactness 	No application in study. Limited assessment of
(d) importance in demonstrating the principal characteristics of (i) a class of Australia's natural or cultural places; or (ii) a class of Australia's natural or cultural environments;	Representative example of an important control tower typology.	<ul style="list-style-type: none"> • integrity 	Yes, intact representative examples of standard ATC forms

Assessment

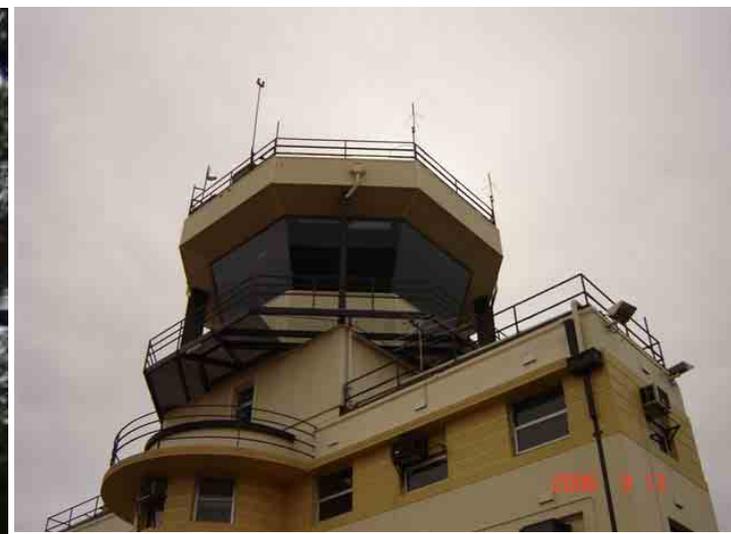
CHL Criterion	Significance indicators	Threshold indicators (CHL)	Application in study
(e) importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;	Evidence that aesthetic characteristics are valued		No, little evidence of appreciation of aesthetic qualities of towers.
(f) importance in demonstrating a high degree of creative or technical achievement at a particular period;	demonstrable qualities: - technical/artistic merit - resourceful (technique) - adaptation (material and construction) - expressive of function/parts	- integrity - design excellence - craftsmanship - legibility - unity - innovative	Limited application. With few exceptions, the towers are utilitarian in their design conception and execution. Perth and Brisbane towers are refined and successful designs. Sydney 5 a key exception as a building specifically designed as a landmark.
(g) strong or special association with a particular community or cultural group for social, cultural or spiritual reasons:	values: - social and cultural meaning - longevity of association - popularity	- extent and degree of association - enduring quality	No, no evidence of such associations. •Towers are functional structures that do not loom large in the public's consciousness. •For most people, they do not form part of their direct experience of the physical environment. •No local social/historical associations (as for public/community buildings such as post offices). •Association is with infrastructure/service provision.

Assessment

CHL Criterion	Significance indicators	Threshold indicators (CHL)	Application in study
(h) special association with the life or works of a person, or group of persons, of importance in Australia's natural cultural history	associations: - important people or groups - major achievement of a recognised person/group		Limited application.
(i) importance as part of Indigenous tradition	Not applicable		

Recommended for nomination to the Commonwealth Heritage List

- Parafield (SA) 1940
- Essendon (Vic) 1956
- Hobart (Tas) 1958
- Launceston (Tas) 1958
- Melbourne (Vic) 1969
- Bankstown (NSW) 1970
- Sydney 5 (NSW) 1996



Parafield (SA) 1940, extensively modified including the addition of an overscaled 1980s cabin



Essendon (Vic) 1956, the building is relatively intact externally. The original console is now in the Airways Museum at Essendon Airport



Hobart (Tas) 1958, a new entry has been added on the west elevation. The original console was replaced in 1979.



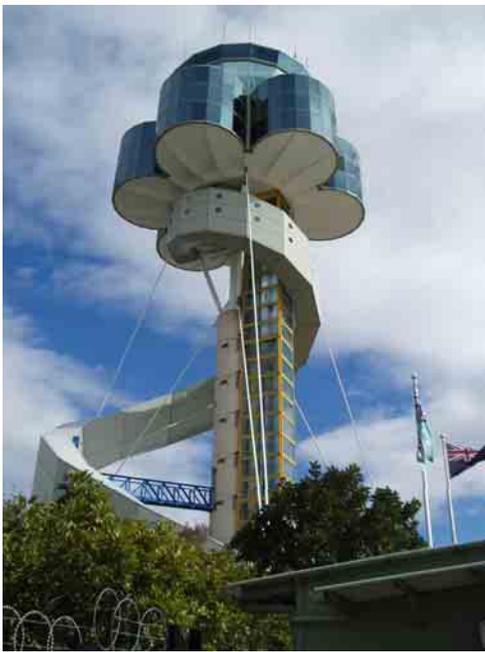
Launceston (Tas) 1958. The original external cladding has been replaced and the original console has been extensively altered.



Melbourne (Vic) 1969



Bankstown (NSW) 1970, this tower is unusually intact including interiors and original console.



Sydney 5 (NSW) 1996

Issues for Future Management

- Upgrade and refurbishment works to operational towers unlikely to affect heritage values
- Towers are only replaced when there is a major functional failure.
- Obsolescence becomes an issue when airports are expanded or reoriented.
- Long-term retention and maintenance of obsolete structures with little or no scope for adaptation.
- Many towers are located within secure airport complexes where availability of land can be an issue.