

We work with the substance of our history - what has happened to us - and the significance of our heritage - the places, objects and intangible culture that remain from our past.



Australian Gliding Museum History Collection

Significance Assessment Final Report

History At Work
November 2023

Project Team Emma Russell, Director | Historian
 Madeline Pentland, Historian

Schedule

Project Significance Assessment of the Australian Gliding Museum Collection

Status & Date Final report, 5 November 2023

Prepared for Ian Grant, Australian Gliding Museum

Contact & business Emma Russell, Director History At Work Pty Ltd
information E | erussell@historyatwork.com.au W | historyatwork.com.au
 M | 0414 530 880 ABN | 96 986 965 179
 ACN | 628 206 726

Table of contents

Table of contents	1	
Executive Summary	2	
Significance Assessments	3	
What are they?	3	
Methodology and author accreditation	3	
Investigation of Cultural Heritage Significance	4	
History of gliding	4	
Focus and Scope of the Collection	9	
Contents of the Collection	9	
Role in the Community	18	
Comparative Analysis	20	
Application of Significance 2.0 criteria	22	
Statement of Significance	24	
Recommendations	25	
References	27	
Appendix 1: Summarised list of gliders and their originality, significance and condition		28

Executive Summary

The Australian Gliding Museum (AGM) received a Community Heritage Grant in 2022 for 'Assessments of our most valued aircraft to the standards of *Significance 2.0*' (ten gliders to be chosen out of 60+).

Their expected outcomes relate to collection management:

- to 'confirm, or otherwise' the Museum's own evaluation of individual aircraft, and 'enable the Museum Committee of Management to exercise more effective decisions regarding future donations.'
- 'an improved understanding ... of the criteria contained within *Significance 2.0* and how they are applied'
- 'an informed opportunity for a future review of the Museum's collection policy', and
- 'a greater ability ... to more rigorously evaluate whether future offers of vintage gliders by donors are in the best interest of the Museum's collection policy'.

And to interpretation and display:

- to 'be more confident of establishing appropriate displays of the Museum collection to their members, the gliding community and the broader public' and
- for the collection to 'be more accurately displayed, via promotions on our website, to a wider national and international audience.'

A significance assessment was undertaken in 2007 by History At Work and funded by Heritage Victoria. It was a pleasure to work with the AGM again after all these years. Last time they were a fledgling operation with a library and archive collection stored at a committee members house and a few gliders restored in a separate workshop. While hampered by conditions and inexperienced in museum and collection management, the committee and members were enthusiastic, ambitious, and determined to do things properly. In 2023 these characteristics remain and great strides have been made with finding a new and appropriate home, and with management of both the library/archive and the gliders.

Significance 2.0 guides their work, and understandings of primary and comparative criteria are very good.

In discussions with the AGM committee it was agreed conducting assessments of just 10 or so individual gliders would be less constructive than an assessment of the collection as a whole, particularly as members are already doing a good job of using *Significance 2.0* for objects.

Significance

This collection has historical, research (technical), and aesthetic significance, supported by excellent provenance, integrity, and interpretive possibilities.

Recommendations

The AGM collects and preserves for entertainment and education and to prevent the loss of skills, techniques, and knowledge associated with gliding. It is also a club of sorts, bringing together people interested in all things gliding. Restoration and archival standards, and historical knowledge are very high, but access to the collection is limited, interpretation is an undeveloped skill, and succession is a problem. Our recommendations speak to these three issues.

Significance Assessments

What are they?

A cultural heritage significance assessment is a tool for museums, archives, galleries, local history societies, libraries, and individual collectors. Based on research and assessed against a set of criteria, the Statement of Significance goes beyond a catalogue description to the heart of why the collection is, or is not, important, and what stories it can tell about our history.

Assessments will not cover issues of preservation, conservation, and management, although recommendations may relate to these. Nor will they assess or offer advice on the financial value of the collection or individual objects.

Collections built on significance are better communicators of our history and heritage and so more likely to become a community asset. When a management strategy incorporates significance, the collection's objects, archives or displays can generate empathy, dialogue, debate, and meaningful understandings of the past. Managers who use significance can also:

- promote awareness and discussion about the value of the collection
- identify priorities in acquisitions, deaccessioning and exhibitions
- focus resources and aid grant applications and funding arrangements
- review collection patterns, and consider strengths, weaknesses and scope
- significance, rather than catalogue descriptions, enhances the value for researchers

Methodology and author accreditation

This assessment was conducted using the methodology described in *Significance 2.0. A guide to assessing the significance of collections* (2009). It involved:

- a visit to the collection
- research into the history of gliding and the collection
- consideration of the collection's ability to reflect its mandate
- consideration of its condition, completeness, and integrity
- a comparison with similar collections
- an assessment against the criteria described by *Significance 2.0*.

Appreciation is due to Ian Grant, Hal Hopkins, and Bernard Duckworth.

Investigation of Cultural Heritage Significance

History of gliding

The sport of gliding or soaring has a war, sporting, and recreational history, propelled by Germany in the post WWI years.¹ The Treaty of Versailles, signed 28 June 1919, prohibited Germany from building military aircraft and limited the construction of civil aircraft. However, the treaty failed to specifically mention gliders or sailplanes, a loophole that the Germans utilized to improve aircraft design and adapt pilot training programs. The techniques, skills and interest in the sport soon spread across Europe and to America and Australia. Early enthusiasts were faced with the challenge of manufacturing a functional homemade aircraft, occasionally resulting in innovative techniques that would be later adopted by larger commercial aeronautical engineers.

Innovators of gliding history²

Adventurers and inventors around the world have been attempting flight since ancient times. Prior to the nineteenth century, the few individuals reputed to have flown, having launched from height with wings, could not be regarded as having flown with any significant degree of control.

It was not until the early 1800s that the forces affecting movement through the air, i.e., weight, lift, drag and thrust, were methodically analysed and described by George Cayley, an English gentleman scientist, based on experiments with his successful model glider of 1804.³

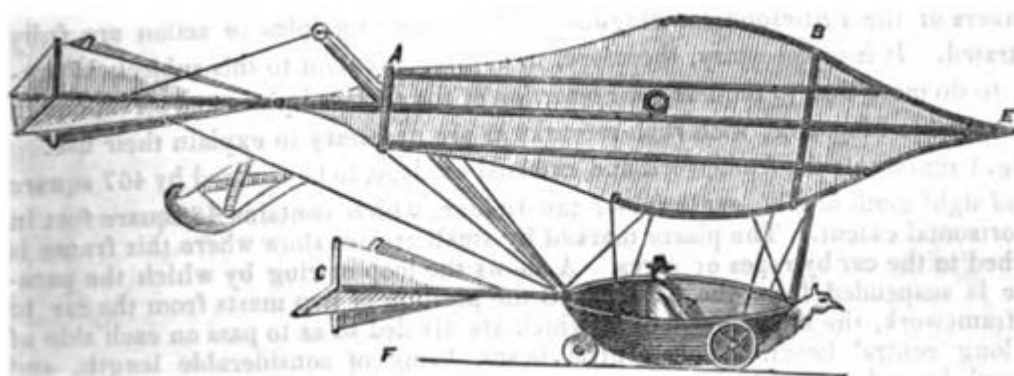
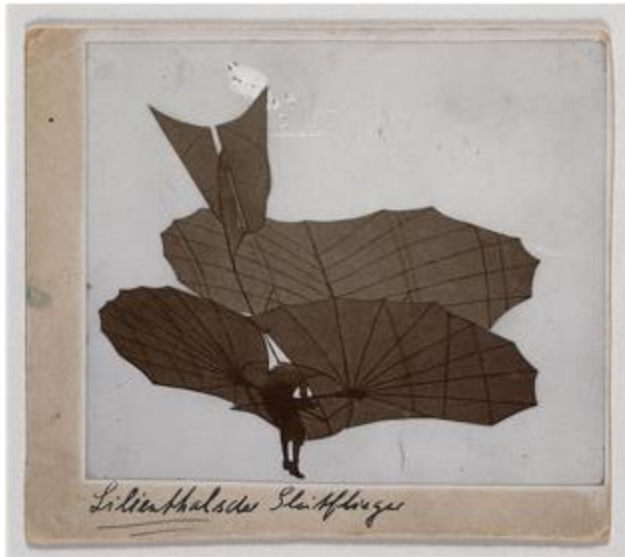


Figure 1 'Sir George Cayley's Governable Parachute', *Mechanics Magazine: Museum Register, Journal and Gazette*, ed. J. C. Robertson, No. 1520 25 September 1852, p. 1.

¹ A glider is an aircraft that uses airflow, thermals, winds, and steering alone to soar through the air for hours at a time. Modern gliders look similar to a small plane without an engine, often with only 1-2 seats for a pilot and passenger. There are also handheld gliders, known as paragliders or hang gliders, that have maintained the appearance of early handmade gliders of the 18th century but manufactured with modern materials.

² Special thanks to Bernard Duckworth, archivist at the AGM, for writing this section

³ J. A. D. Ackroyd, 'Sir George Cayley: The Invention of the Aeroplane near Scarborough at the Time of Trafalgar', *Journal of Aeronautical History*, no. 6, 2011: 176; see also, J. A. D. Ackroyd, 'Cayley's 1804 Glider', *Journal of Aeronautical History*, no. 3, 2019.



Lilienthalscher Gleitflieger, Otto Lilienthal, 1895/96 'Photo shows a glider, designed by Otto Lilienthal, in flight', U.S. Library of Congress

As knowledge surrounding the aeronautical theory continued to develop around the world, better machines were devised, and gliders were central to this advancement. The first inventor to succeed in repeated controlled flight of fixed wing design was the German Otto Lilienthal. He completed almost 2000 successful flights in his various hang gliders until his unfortunate death from a gliding accident in 1896. His hang gliders, like their modern counterparts, were controlled by the pilot shifting his weight under the glider to change its attitude and direction.

Around this time, Australian Lawrence Hargrave experimented with box kites as stable lifting devices. He demonstrated the power of the box kite design by being lifted 5 metres from the ground in a seat slung under a series of kites. Hargrave published the results of his experiments and shared his knowledge freely with many aviators and this influenced the configuration of early aircraft. This may be seen, for example, in the biplane hang gliders designed by Octave Chanute (a French man who settled in America), which were a development of Lilienthal's approach.



Lawrence Hargrave working on a box kite, Woollahra Point, Sydney (c. 1910), photographer unknown.

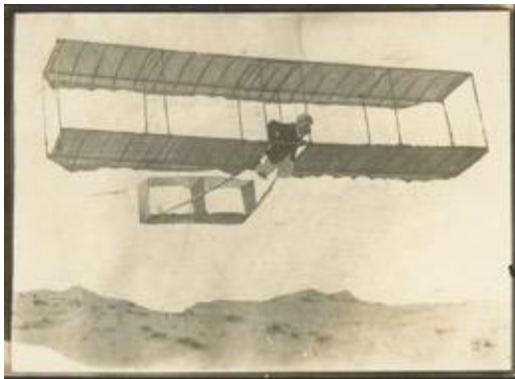
State Library of NSW

The Wright brothers in America, following on from Chanute, adopted the braced biplane form and sought to find a better means of control than weight shift, which was used with Lilienthal and Chanute types of hang gliders. Taking a systematic approach, they made the critical advance for controlled fixed wing flight with their gliders incorporating three axis control, with an elevator for pitch, rudder for direction, and wing warping for controlling roll. In further developments ailerons replaced wing warping.

Aviation in Australia followed these feats by the Wrights and others. The idea of gliding as a sport soon emerged. For instance, *The World's News* alerted readers to aerial tobogganing gaining popularity in

France.⁴ According to the author, all one needed was a box kite glider, a hillside and considerable nerve. The article was accompanied with an illustration of a person flying down a steep hill on a machine similar in some respects to a Wright glider.

In December 1909, a hang glider made by George Taylor was flown by Taylor himself in Australia's first true sustained flight. It barely covered 200 metres but was the first of many great achievements in Australian gliding. Others experimented with gliders with mixed success. The development of gliding stalled during the first world war (although the development of powered aircraft for military use surged ahead). It was not until the late 1920s that gliding really advanced technically and in popularity in Australia, once again following overseas trends. Over a century since George Taylor's glider, sailplanes or gliders can now travel at over 100 kilometres per hour for more than 1,000 kilometres and use highly sophisticated electronic navigation.



George Taylor flying at Narabeen, N.S.W. in 1909

National Library of Australia

Manufacturing gliders (1900s to 1950s and beyond)

The early days of gliding were a labour-intensive feat. Gliding club members around Australia designed, built, maintained, and repaired all aspects of the sport, from bungees, car tows and winches to the actual sailplanes and gliders to buildings such as hangers to store gliders and the club houses to meet in. Aircraft were largely constructed out of wood, and later metal, before moving on to the technologies of fibreglass, carbon fibre, and Kevlar by the 1950s.⁵ Due to the costs and expertise associated with these expensive materials, modern glider manufacturing is largely confined to commercial companies. However, older and retired members of the gliding fraternity have kept the original knowledge of glider construction alive, still repairing, constructing, and flying replicas of early wooden and metal aircraft.

Recreational and competitive gliding

The popularity of gliding took off in the late 1920s and 1930s with a number of reports about gliding in Germany in the widely distributed magazine *Popular Hobbies*, and a lengthy illustrated article in the *National Geographic* magazine.⁶ Gliding debuted at the 1936 Berlin Olympics as a demonstrative sport (no medals awarded) with 21 pilot participants from 7 countries (Bulgaria, Italy, Hungary, Yugoslavia, Switzerland, Germany and Austria). It was a hazardous sport in such large numbers, with one pilot crashing to his death in the lead up to the race. It was endorsed by the International Olympic Committee and anticipated to be a part of the 1940 summer Olympics, which never transpired due to the outbreak of WWII.⁷ Since then, gliding has never reached Olympic level, with pilots competing instead in the

⁴ 'Tobogganing through the air' *The World's News*, Sydney: NSW, 11 Nov 1904, p. 1.

⁵ The 'FS-24 Phönix' was the first sailplane built using fibreglass technology in 1957 in West Germany, see 'Machine - Glider - Sailplane, 1960', AGM: Victorian Collections, 2019. <https://victoriancollections.net.au/items/56a2fa132162f10984460125>

⁶ Allan Ash, *Gliding In Australia*, 1990, p. 10.

⁷ 'Gliding at the 1936 Olympics' Wikipedia, 2022.

annual World Gliding Championships (WGC) since 1937. In Australia the WGC have been held in Waikerie, South Australia (1974), Gawler, South Australia (2001), and Benalla, Victoria (1987 and 2017).

Gliding clubs in Australia

The Geelong Gliding Club was the first club formed in Australia in 1929. That same year the short-lived Gliding Club of Australia was formed, followed by the Gliding Club of Victoria, and many local clubs which are still in existence today. By Easter 1931 the newly formed Victorian Gliding Association was able to hold their first gliding rally with ten clubs from around Victoria participating.⁸ Gliding activities and clubs were established in all the Australian states around the same time. On 26 June 1949 the Gliding Federation of Australia was established at a meeting in Melbourne, providing a body which represented gliding clubs and enthusiasts in all the states.⁹ Now known as Gliding Australia, the federation has an active membership from around the country, assisting pilots on airworthiness, training, safety and operations, as well as social sub-groups, like the Rockettes (women in gliding) group.¹⁰

Allan Ash regards the 1950s as the “club era” of gliding in Australia, followed by the “private owner era” of the 1960s.¹¹ Accidents were common during the early ‘club era’, as many of the amateur pilots learned to fly on primary gliders with little instruction. During the 1960s clubs began to attract more members with disposable income. With some exceptions, like the “flying swagman”¹² Arthur John Fisher of Corryong, enthusiasts were able to buy aircraft rather than make their own, which brought instrumental changes to the sport.

Flying experience and expertise rose, taking with them higher standards, safety precautions and greater expectations of performance in a glider. These sustain into the present. The increasing complexity and expense of the sport has caused younger enthusiasts and gliding fraternity alike to look back at the simpler days of gliding and turn their efforts to hang gliding as a way of keeping themselves in the skies.

Historic themes in the collection:

- Aeronautical
- Adventurism;
- Aeronautical engineering;
- International and national competition;
- Home made gliders;
- Club development & history
- Individual pilot achievements

⁸ AGM Newsletter, no. 43, 2021, pp. 10-12.

⁹ Ash, Gliding In Australia, p. 155.

¹⁰ Gliding Australia website.

¹¹ Ash, Gliding In Australia, p. 161.

¹² AGM Newsletter, no. 44, 2022, p. 7.

History of the AGM and its collection

The Australian Gliding Museum was established in 1999 after some in the gliding fraternity became alarmed at discovering a significant ES Schneider glider had been sent to an overseas collection. Subsequently, inspired by visiting a number of aviation museums in America, and facilitated by the coming together of several people with shared interests, the Australian Gliding Museum became incorporated on the 21st December 1999.

It has since relied entirely on donations from gliding enthusiasts and experts and remains a 100% volunteer organisation. Since it's origins in the spare room of the Secretary / Treasurer Graeme Barton for the library, and a workshop in Ferntree Gully for the gliders, the museum has found a home at the Bacchus Marsh airfield that is shared with three gliding clubs (Beaufort, Geelong and Melbourne), a pilot training school and private owners. They opened here on 20 November 2008.

Here, the AGM occupies a large hanger with a workshop, meeting space and kitchenette at one end, a closed off workspace for spray painting gliders during restoration work, and a library and archive at the other.

The committee have always been very active, producing an informative newsletter at least twice a year that tells of committee and volunteer activities, progress with the library and glider collections, and stories about gliders and members.

By 2007 there were about 120 members from around Australia, which has remained the same since. Also by 2007 the Museum had been accepted as an Institutional Member of Museums Australia, established links with gliding museums around the world and across Australia through the Aviation Museum National Network, established a workshop with a full time roster of volunteers to restore donated gliders, been endorsed as an income tax exempt charity and as a deductible gift recipient, attended Museums Australia workshops on cataloguing and collection care, and had a significance assessment and preservation needs assessment conducted on their collection with a view to gaining Museums Australia accreditation, but they have not yet sought accreditation under the AMaGA Museum Accreditation Program.

Alongside the almost constant work on repairing and preserving the collection of donated gliders is the equally dedicated task of building and caring for the library/archive. This was organised by donations – 'Alan Ash archive' 'Ian Leslie archive' etc – and moved from Glen Waverley to the Bacchus Marsh airfield hanger where it has since been housed in archival quality boxes or on library shelving.

In addition to the new archival storage, and under the guidance of the AGM's archivist, the process of arranging by donor was 'largely abandoned in favour of a general collection storage box approach due to the multiplicity of sources and diversity of material being received...'¹³

Cataloguing of both the gliding and the library collection has been diligent using spreadsheets and, since joining Victorian Collections in 2019 53 gliders have been catalogued, photographed, and uploaded with a full history, description, and significance for each.

¹³ Bernard Duckworth, personal communication, 12 August 2023.



Focus and Scope of the Collection

The collection encompasses a range of material related to gliding, both around the world and in Australia, including full-size gliders, model gliders, internal parts of gliders, glider schematics, glider paraphernalia, photographs, memorabilia, video recordings, and a few oral history recordings. The library and research collection includes files, articles, photographs, documents, DVDs, videos, medals, correspondence, books, certificates, papers, reports, logbooks, leaflets, and memorabilia.¹⁴

There are approximately 1000 items in the library/archive and some 160 gliders and other objects.

Contents of the Collection

The following is an indication of the breadth and diversity of the collection material, NOT a complete inventory.

Archive Room

Library shelving

Books on:

- Meteorology for gliding
- Vintage sail planes

¹⁴ 'Aust Gliding Museum New Archive Numbered Boxes 24-0402022' spreadsheet.

- History of Gliding Clubs i.e. London 1930-2000
- Gliding around the world: Germany, Türkiye, and Italy
- Peace and war: military
- Photographic books (Beauty of gliding)
- Art of gliding and soaring
- Theory of flight for glider pilots
- Guides/Manuals: Glider flying handbook, ABC of gliding, fundamentals of sail plane design, glass fibre for amateurs, introduction to aircraft design, AGM:
 - principles and practice,
 - instruments and accessories
 - navigation inspection and tests
 - routine and special applications
- Illustrated encyclopaedia: Series of Jane's World Sailplanes and Motor Gliders
- Biographies personal accounts
- Proceedings of the 1971 symposium on competitive soaring
- Bound volumes of Australian Gliding Journal (1954-1980): complete collection



Library shelving

Martin Simons Collection (author, teacher and designer and builder of model aircraft)

Bound volumes of journals and magazines:

- Vintage Glider Club (VGC) newsletters (no.44-128)
- Soaring Australia
- Sail Plane and Glider
- Sail Plane Gliding
- Soaring

Books (Similar to general library):

- Stories by Great Glider Pilots (Part 1 and 2)
- Story of Gliding
- Mechanics of flight
- Elements of practical aerodynamics
- Books by Martin Simmons:
 - *German Air Attaché: The thrilling story of the German Ace Pilot of Wartime Diplomat Peter Riedel*

Miscellaneous photographs in archive boxes, folder of 'Sorted photos by 'country' or 'maker'':

- Gliders in Switzerland

- Schneider gliders in Germany and Australia
- East German Condors
- Australia – gliders in use, in storage, bits of gliders, etc.



Books and images in the Martin Simons collection

Back Section (archive boxes):



R.N Duckworth, 'Gliding Club of Victoria History Project', 1989.



Correspondence between the Federal Department of Civil Aviation and the Gliding Club of Victoria, 14 Dec 1939.



Gliding Federation papers (1949-2004):

- annual reports
- executive minutes
- meeting papers
- secretarial files
- comprehensive annual statistics per financial year (registration and membership, flying hours, launches, hrs per pilot/launch, no. of flights, total kms – all per club, as well as letters and records re. independent/private ownership)

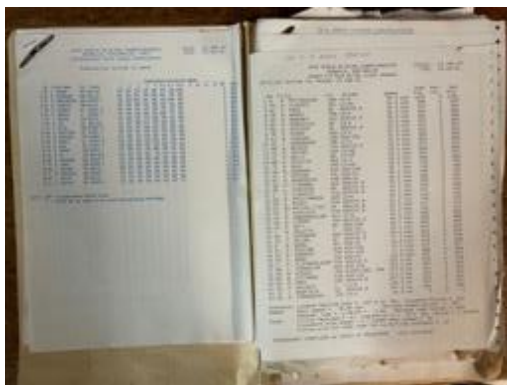
Graeme Barton Collection:

Mr Barton was the Secretary of the AGM for many years and stored the donated photographs, books and journals in his house until they moved to Bacchus Marsh. He organised most of the material by donors.

- Ian Leslie AM (3 boxes - books and manuals)
- Peter Novakovic OAM (books)
- Herald Shelton (7 boxes – books and manuals)
- *Flight International* selected copies from (June 1934-May 1938)
- Sir Raymond Garrett (books and magazines)

- Allan Ash – his research material used in *Gliding in Australia* book (folders 1-37 – very organised in files). This book is in the library.
- Warren Mayfield (3 boxes - books and manuals)
- More sets of Journals
- Richard “Dick” Duckworth archive:
 - Gliding Club of Victoria: history project – annual reports and balance sheets from 1929, gliding subsidy with commonwealth of Australia and the civil aviation board 1943
 - Australian Gliding Association
 - 3 large arch lever folders of photographs (vol 1, 2 and 3) of people flying, working with or posing with gliders. They often include names, and places but are not all dated. They seem to be from around the 1940s
- Alan Patching collection (books and manuals)

Compactors



Compactor 3: Scoresheet of the 1987 world championships, Benalla



Compactor 3: Slide projector with image slides of MOAB 2 glider under construction. 1950s?



Compactor 4: Keith Nolan Collection, Gliding trophies and medals, 1970-1990s.



Compactor 5: Logbook (Ministry of Transport and Civil Aviation Division, New Zealand) and technical records of Slingsby T.49B Capstan (1963)

Compactor no. 1 from back wall:

- Graeme Barton collection (more boxes organised by donors)
- Manuals and technical papers from Gary Sunderland – i.e. “Strength value for woods for use in aircraft design”

Compactor no. 2 from back wall:

- Collection of letters and parcels sent to “G. Heydon”

- Fullarton collection - documents regarding the 20th World Gliding Championships in Benalla 1987

Compactor no. 3 from back wall:

A lot of loose objects (radio equipment), and documents.

- Allan Patching collection:
 - General radio equipment
 - 2-way radio used in the Golden Eagle
 - Gliding Federation Australia – technical competition documents
- Slide projector with slides (in a lovely green case around 1950s?)
- Collection of the daily bulletin of the 1987 world championships at Benalla
- Gliding VHS tapes and DVDS (also on the floor along the back wall in cardboard boxes)
- Several albums of photographs with descriptions (i.e. details of restoration and repairs of wooden gliders in 2007 and replica bi plane hanging in hanger)

Compactor no. 4 from back wall:

- Beryl Hartley (entire 6x3 shelves full of): *Australian Gliding* magazine and photographs
- Keith Nolan (3 boxes): Gliding trophies and medals (c. 1973)
- Books and journals
- Miscellaneous items from VMFG
- Sundry items:
 - Harold Bradley
 - NGS Course materials
 - Scrap book re. Benalla world Champs 1987
 - Memorabilia of John Buchanan and The Van Alkemade
- Another box of sundry items:
 - A tribute to the builders of the Altair Sailplane
 - Percy Pratt landing at Geelong
 - Beverly Matthews oral history recording
 - Gliding at Bacchus Marsh

Compactor no. 5 from back wall:

Box files, one for each glider containing technical information ie:

- “30
- Schneider GCV
- Grunau Baby3A
- VH-GHV” → collection includes logbook, inspection records.

Other boxes -> logbook, certificate of design, flight record type test report

Adjacent to the fifth compactor is a moveable shelving unit positioned against the wall. It contains glider design plans - rolled up, tagged by name, and stacked.



Glider design plans, located next to compactors

Journals & magazines

- *Australian Gliding* (1950-1990)
- *Soaring* (1946-2016) The journal of soaring society of America
- *Bungee Cord* (newsletter of the vintage sailplane association of the US) 1975-1995
- Papers/newsletters from diff clubs: i.e. Aus gliding Museum newsletters
- Homebuilt gliders newsletter

Workshop

Gliders



Gliders on display in the museum

Please see Appendix 1 for a complete summary of the types of gliders and their originality, significance, and condition, drawn from a document entitled 'AGM Aircraft Collection Status'. It lists 47 gliders, a handful of which are listed here:

Pre 1929 – Kites and Hang Gliders (3 listed), ie:

- Lilienthal hang glider VC 204. Partly completed reproduction using some modern materials. Significance – representing a historical significant type of aircraft, being the first man carrying glider in the world. Condition level 3 'under restoration and not yet ready for exhibition'

1929 to 1949 – Primary gliders and early sailplanes (9 listed), ie:

- Northrop primary VC 41. Reproduction. Significance - representing a flyable example of a typical 1930s primary glider with a design based on the German Zogling. Condition level 2 suitable for exhibition. A note against this listing suggests 'existing colour scheme should be preserved'.
- Golden Eagle VC 215. Original as modified during its period of use. Significance – historical association with Australian gliding pioneer Geoff Richardson and with VMFG, and once the longest

continuously airworthy vintage glider in the world. Significance - technical attributes. A note suggests the existing colour scheme should be preserved.

- Hutter 17 VC 23. Original. Significance – historical and representative. Condition level 4 deteriorated and unstable. Sweetwings was built by Neville Wynne and Allan Milligan in WA in 1949. Important part of the Gliding Club of WA fleet in 1950s. In addition to its connection to post war WA gliding the Hutter is representative of this popular type of small glider designed in Austria in the 1930s for professional and amateur builders. Not particularly rare in Australia as a number survive of which a couple are airworthy (including one locally). The glider should be finished in the colours that it had when flown at Gliding Club of WA in 1950s (more research required).
- EON Olympia VC 25. Partly restored original. Significance – representative. Condition level 3 under restoration. Representative of the classic DF5 Meise / EON Olympia sailplane type. Not particularly rare as there are three other flying examples in Australia. Note: the glider should be finished in the colours that it had when operated by the Darbyshire Syndicate – predominantly a dark blue.

1950 to 1960 – Early modern (14 listed), ie:

- TG3A VC 42. Original as modified during period of use. Significance – historical. Condition level 5 in a derelict condition. This ex-US military aircraft was imported by well-known power and glider pilot Fred Hoinville in 1950. It was flown by a pioneering woman glider pilot Grace Roberts in making a national altitude record. Later modified (flat topped) by Hoinville and flown in National Championships. Later flown at Port Augusta and Cooma until about 1968. Airframe is missing some components. Similar in credentials of the LK-10 but would require much more work to restore to the condition that the aircraft was in when flown. Note: if restored the glider should be finished in the silver colour scheme that it had when flown by Hoinville in Nationals – connection to Hoinville paramount.
- Slingsby T318 VC 6. Restored original. Significance – representative. Condition level 2 used / well cared for and airworthy or potentially airworthy. Restored and flyable example of a 1950s training glider used by a number of clubs in Australia. Note: existing colour scheme.
- Altair VC 19. Original. Significance – technical. Condition level 5 in a derelict condition. An Australian 18 metre span open class sailplane designed by Ron Adair and built by Ron Adair with assistance of Cliff Gurr. First flown 1958. Flown in at Nationals at Walkerie and used to set an unofficial National distance record. Main historical significance is that it shows state of development reached by Australian designer / builders in late 1950s. Note: query whether the glider should be repainted – preserve the existing colour scheme (which is as it was when in service). Clean up and present for display as is.
- Phoenix VC 210. Original. Significance – technical. Condition level 2 used / well cared for and airworthy or potential airworthy. A prototype using moulded grp technology developed in Germany in late 1950. Not flown in Australia but represents the forerunner of production grp designs such as the Phoebus which were imported and flown in Australia from 1960s. Note: not to be painted – existing finish to be preserved.

1961 to 1975 – Modern (19 listed), ie:

- Schleicher KA88 VC 211. Partly restored original. Significance – representative. Condition level 3 under restoration. A Rudolf Kaiser design from 1965. Many built worldwide. Single seat version of Ka 7 and popular as an early solo machine. Museum's example (a Ka88) built from a Schneider kit in 1967. Service period from 1967 to 1995. Representative of Type. Query significance of Type for Australian gliding history. Note: existing colour scheme.

- MOBA VC 217. Original. Significance – technical. Condition level 2 used / well cared for and airworthy or potential airworthy. Specifically connected to sailplane design competition sponsored by Australian Gliding. Significance is to be found in the construction techniques applied by the designer builder (Gary Sunderland) for the development of a high performance home built competition sailplane. Note: not to be painted – existing finish to be preserved.
- Woodstock VC 201. Original. Significance – representative. Condition level 2 used / well cared for and suitable for exhibition. A late 1970s American design for amateur construction. Possibly 3 built in Australia. The Museum’s Woodstock is a fairly recent build – completed 2001. It is flyable and ready for display. Not significant at this stage for Australian gliding history. Note: existing colour scheme to be preserved.

Models



A fraction of the models on display at the Australian Gliding Museum

The collection includes approximately 20 models of gliders, including:

- Cadet
- EPB1 - wooden
- Schneider (ES 50 Club – wooden, ES 52 – Yellow, ES 56 – wooden, ES 57 – wooden, ES 59 – wooden, ES Nymph - Orange, ES 52 – wooden, ES 60 – wooden)
- Grunau (Baby 4, Moazagotl)
- Lasco Lark
- Scheibe SF 41 Merlin
- Nacelled primary
- Taylor Glider

Equipment



Display area for gliding equipment and gliding club paraphernalia

Equipment associated with gliding includes winches, wood grading tools, a tug aircraft engine, harnesses, instrument panels and various components thereof, oxygen masks, cylinders and regulators, radios, headsets, microphones., propellers, and instruments for measuring altitude, the rate of change in altitude, wind, and barometric pressure.

Role in the Community

Background

The Australian Gliding Museum's Statement of Purpose, lodged with their application for incorporation in 1999, states that: The Australian Gliding Museum is being established for the following purposes:

- To establish and operate a public museum in which to collect, preserve and display items of sports aviation historical interest
- To stimulate awareness of, understanding and participation in all forms of sport aviation, and in particular, gliding
- To promote interest in the restoration, display and flying of vintage gliders
- To encourage greater participation in the adventure of flight.

Membership

Today there are 120 members of the Australian Gliding Museum and 198 followers of its FaceBook page.

Workshops



Gliders undergoing restoration in the workshop



Darbyshire Sydnicate EON Olympia c. 1949 in the final stages of restoration

Since moving to Bacchus Marsh the AGM have established a 5-day workshop program to teach the skills and techniques required for minor timber repair and fabric training. The introductory notes for these courses explain 'The broad objective the of the Australian Gliding Museum is "to preserve Australia's gliding history". This includes preserving the aircraft, records, documents, stories and memorabilia.'¹⁵

The AGM Minor Timber Repair and Fabric Courses are hand-on practical courses aimed at developing the understanding, product knowledge, tool use hand skills, and techniques required for achieving airworthy, neat and attractive minor timber repairs and fabric covering of airframe components, ready for painting.

- Target groups of trainees include:
- Museum volunteers
- Owners of wooden gliders and aircraft who wish to acquire the skills
- Operators of glider serving and repair businesses
- Homebuilders of gliders and powered aircraft

¹⁵ Peter Raphael, Hal Hopkins, 'AGM Wood & Fabric Courses – Introductory Notes', 13 August 2023

Comparative Analysis

The 2007 significance assessment remarked under this section that:

The AGM is the only gliding and aviation museum in Australia with a national focus. There is a smaller gliding museum, the Adelaide Hills Soaring Club at Monarto in South Australia, which is more limited in scope than the AGM, containing only one glider, and is essentially being established and managed by one enthusiast.

Since that time very little has changed, except for several small, privately owned collections by members of the Vintage Gliders Australia for flying at rallies a few times a year. The following museums are the closest related to the AGM round the country.

Moorabbin Air Museum

Located at Moorabbin Airport, Moorabbin Air Museum was established in 1962. MAM has over 300 current members, inviting visitors from all around the world. The membership and volunteer base attend the Museum, restore and maintain the aircraft collection, and even run the front shop and provide tours. Moorabbin Air Museum boasts the largest collection of aircraft at Moorabbin airport, a total of 52 aircraft which includes five gliders.¹⁷

- Benson Gyrocopter c. 1950s - acquired in 2005, in storage.
- Duigan - Centenary replica, acquired and flown in 2010, 'credited as being the first flight in Australia by an Australian designed and built aircraft'.
- Heron primary glider c. 1920s, found in a shed at Upper Beaconsfield in 1943, shortly after reconstructed by Melbourne Technical College (now RMIT), first successful flight in July 1945.
- A Koltai Ornithopter device, undated.
- Skycraft Scout built in 1979 – donated in 1993.

Aviation Heritage Museum of Western Australia

Located in Bull Creek, a 20-minute drive south of Perth, Aviation Heritage Museum is a museum formed in association with the Royal Australian Air Force Association (RAAF), and as such is predominantly an Australian military history museum. The aircraft and artefacts displayed relate closely to the RAAF and they publish Australian Flying Corps and RAAF Rolls of Honour on their website. The collection of 30 aircraft has been designed, donated and built by volunteers. It is not clear that any of these are gliders. Aviation Heritage Museum has an active social media presence, where they publish research of their artefacts, and advertise 'Special Family Day Events', tours, and reviews.¹⁸

¹⁷ <https://www.aarg.com.au/gliders.html>; <https://www.mycommunitylife.com.au/Community/Australian-National-Aviation-Museum#:~:text=The%20aim%20of%20the%20Museum,front%20shop%20and%20providing%20tours>

¹⁸ <https://www.westernaustralia.com.au/attraction/aviation-heritage-museum/56b267cad5f1565045dab03f>; <https://aviationmuseumwa.org.au/aircraft-collection/>; <https://www.facebook.com/AviationHeritageMuseumWesternAustralia/>

South Australian Aviation Museum

The South Australian Aviation Museum has several collections on display, including aircraft and aircraft parts, Andy Thomas Collection (NASA astronaut who studied at Adelaide University), RAAF Aircraft Research and Development Unit Collection, Badger Family Collection (Spitfire military aircraft), badges and uniform collections, models, as well as Royal Aero Club of S.A. memorabilia.

There are 27 gliders on display, some are the only examples of their type on display in Australia and others which were a part of the RAAF Aircraft Research and Development Unit. The Aviation Museum has one hang-glider in the collection, a Twister 134 Hang Glider c. 1970s, formerly owned by Wayne Blackmore, a founding member of the Hang Gliding Association of South Australia They have an active social media presence on Facebook where they advertise relevant local exhibits.¹⁹

Central Australian Aviation Museum

The Central Australian Aviation Museum in Alice Springs was founded in 1977 and opened two years later with financial assistance from the Northern Territory Government. It is situated within the aviation precinct of the heritage listed Connellan Airways hangar (1940), comprises a replica of the Bellman hangar, Heron hangar and the Kookaburra memorial. In addition to aviation documentaries, photographs and aircraft hardware on display, there are 10 aircraft on display at the Central Australian Aviation Museum. This includes one Kookaburra Glider, acquired by the Alice Springs Gliding Club in 1976 and used for training until February 1979 when it was donated to the museum. They have an active social media presence on Facebook and visitors can attend the museum free of charge.²⁰

The strength of the AGM collection as that it is the largest collection of gliders in Australia. There is a wealth of knowledge and expertise shared among volunteers and members that is unique to the AGM. The AGM's current location is confined to one hangar with many gliders on display. This restricts the amount of historical interpretation and exhibition space available.

A noticeable difference between the AGM and other aircraft museums around the country is the level of community engagement, whether via social media, events, or local exhibitions, and different audiences that can engage with the museums, such as children, elderly, etc. There is capacity for the AGM collection to be exhibited and promoted in a more engaging way to the public.

¹⁹ <https://www.facebook.com/saammuseum>; <https://www.saam.org.au/collections.html>

²⁰ <https://www.centralaustralianaviationmuseum.org.au/>; <https://www.facebook.com/CentralAustralianAviationMuseum>

Application of Significance 2.0 criteria

The AGM have begun making an assessment for each of its gliders, based largely on historic association, technical and representative values held by the individual glider. This process will be developed over time. The discussions under each criterion below apply to the collection as a whole.

Primary criteria.

These evaluate the type(s) of significance. The collection must fulfil one of these primary criteria to be considered significant.

Historical significance *(A collection must demonstrate associations with people, events, historical processes, places or themes; it may reflect a particular way of life; important industries; urban, municipal and social developments; or the passions and concerns of those associated with the collection.)*

There is a great deal of historical significance across this collection. It clearly demonstrates an association with gliding as a sport and a technical development in aeronautics, but also with many of the leading experts and proponents of gliding in Australia. It is a strong reflection of a community of professional and amateur pilots, and the evolution of clubs and of gliding in Australia since the 1930s. There are items such as logbooks, medals and memorabilia.

Aesthetic significance *(Demonstration of craftsmanship, a particular style or design, technical excellence, innovation, beauty or quality of execution.)*

The gliding half of the collection has considerable aesthetic significance in the craftsmanship and design of many gliders.

Research significance *(There must be a well-documented context and collecting history with firm provenance, such that it allows researchers to verify or reinvestigate data or develop new research questions.)*

The extensive archival collections from a range of donors, including research material gathered by Allan Ash for his book *Gliding in Australia*, log books for several of the gliders, the strong provenance known of many of the gliders, and other material offers many opportunities for further research into the history of gliding, particularly in Victoria but also around Australia.

Social significance *(If the collection is held in community esteem or demonstrates community affection, structures, beliefs or cohesion. This is a contemporary value so only applies if the bond is evident or active in the present. Without it collections may still have historical significance.)*

Social significance in this collection exists in a limited way for those volunteers who devote many dedicated hours to the restoration of gliders and to managing the library and archive, in the same way as it would if the AGM were a club rather than a museum.

Comparative criteria.

These modify the primary criteria to evaluate the degree of significance. Fulfilling any or all comparative criteria, but not any primary criteria, does not make it significant.

Provenance *(A documented chain of ownership, recorded use and origin.)*

Provenance across the entire collection, the library and archive as well as the gliders themselves, is excellent.

Rarity & Representativeness *(This relates to the quality of the collection in relation to similar collections and asks if it is a poor, typical or good collection. A collection may be rare if it is unusual or a particularly fine example, or extremely well documented, or has other distinguishing qualities.)*

This collection rates very highly in relation to other gliding and aeronautical collections

Condition, Intactness and Integrity *(If a collection is unusually broad, or includes original, or complete set of primary documents, and is well cared for, this could enhance its significance.)*

The determination to achieve and maintain museum accreditation and to restore as many of the gliders as possible to exhibition or even air worthy standards has meant the overall collection is very well cared for. There is a great deal of integrity in the preservation activities of volunteers, and this extends to their capacity and willingness to teach restoration skills to the standard required for flying by the Gliding Federation under the Civil Aviation Safety Authority.

In the archive there are complete runs of some of the journals, research notes and images associated with one or two of the publications, complete collections from individual significant donors, and many of the gliders have their associated technical drawings.

Housing and cataloguing is also very good, and 53 gliders have been uploaded to Victorian Collections to date with clear images and a full (history, significance, description, markings).

Interpretive Capacity *(Ability to demonstrate historical themes, processes, people or events. It requires a relationship with its context, or capacity to illuminate aspects of the relevant history. Interpretive potential differs from historical significance as it relates to the value the collection has to the curator or manager to create interpretive or informative displays.)*

The museum's location in an airfield hanger and its close location to three gliding clubs gives the gliders and the archive material a high interpretive capacity. The relationship between the archive and the glider collection is strong, enabling a curator to build exhibitions that tell stories of innovation, construction, adventure, achievement, technique, and skill not only in Australia but in Europe and America as well. The original organisation of the archive, by donor, and the extent of provenance known of many of the gliders also enables a story to be told of the evolution of the gliding community.

Statement of Significance

The collection of the AGM has strong historical significance at the national threshold. It is the largest museum collection of gliders in Australia. The aircraft collection clearly demonstrates strong connection with gliding as a sport in Australia and around the world and a technical development in aeronautics. The collection is also representative of many of the leading experts and proponents of gliding in Australia. Artefacts and memorabilia at the AGM are a strong reflection of a community of professional and amateur pilots, and the evolution of clubs and of gliding in Australia since the 1930s. The considerable aesthetic significance of the craftsmanship and design of many gliders is upheld by the restoration workshops held at the AGM.

The AGM has an excellent record management system, with provenance and historical research documented across digital and physical platforms. There is extensive opportunity for storytelling at the museum due to the strong relationship between the archive and the glider collection. A curator is able to build exhibitions that tell stories of innovation, construction, adventure, achievement, technique, and skill not only in Australia but in Europe and America as well.

Recommendations

Succession

The AGM archive/library is secured to the industry standard and administrative records are commendable for the amount and clarity of information that has been catalogued. It is recommended that the AGM develop a succession plan for these documents to ensure established procedures are maintained in the future:

- Document steps involved in filling in the index and archival register.
- Transfer, clearly name, and organising the files on the AGM computer.
- Start training other people in the archival process.

Accessibility

A priority for the museum should be the accessibility of the collection and breadth of gliding historical research conducted at the AGM.

- Maintain online presence, such as seasonal newsletters, website, and Victorian Collections, and advertise and publish more frequently on social media platforms.
- Advertise workshops, 'Wood Repair' and 'Fabric Covering' courses on social media, as well as exhibiting at the annual National Trust Heritage Trades Show.
- Showcase the breadth of knowledge shared by members of the AGM, supported by archival objects and historical research, by developing seminars and talks: recorded and published online, or livestreamed, on Zoom or in-person.
- Articles currently restricted to the newsletters could be published via facebook and other social media.

Oral History Project

An ongoing recommendation from the 2007 SA report is that the AGM commences a "substantial oral history collection recording the reminiscences, activities, techniques, camaraderie and concerns of gliding since the 1930s".

- A good starting point to build awareness of the oral history process is to digitise, transcribe, and where appropriate place online, any recordings currently in the AGM collection, i.e. the Beverly Matthews oral history recording.
- A supervising historian could be engaged to run an oral history workshop, enabling members to continue conducting and recording interviews to an appropriate standard.
- Alternatively an institutional membership with Oral History Victoria will enable the AGM to have access to workshops, recording equipment on loan, a newsletter and other oral history resources (see <https://oralhistoryvictoria.org.au/>)

Library

Nearly half of the archival space is taken up by the AGM's library shelves full of journals, books, and memoirs. It is a fantastic resource for historical gliding research unique to the AGM collection. Open access to the library collection by:

- Publishing on the website, social media and newsletters which books unique to AGM are available for research on site.
- Digitise significant images in the photograph collection for uploading onto Victorian Collections and sharing on social media

Photo and Video Workshop Exercise

Preserve the integrity of recordings by digitizing of images, VHS tapes and DVDs:

- Roundtable/Workshop exercise: get all the photos out, search for duplicates, and everyone details as much as they know about the images for recording in the AGM catalogue.
- Prioritise images that appear to be the most high quality and 'significant' to Australian gliding history and publish them on Victorian Collections, i.e. images from the Richard "Dick" Duckworth archive.
- Open up the AGM image archive for public use; high definition scans of images in research, for a fee or otherwise.

References

Methodological guides

- Russell, Roslyn and Kylie Winkworth, Significance 2.0. A Guide to Assessing the Significance of Collections. Canberra: Collections Council of Australia Ltd, 2009.
- State of Victoria and Heritage Council of Victoria, Victoria's Framework of Historical Themes. Melbourne: Heritage Council of Victoria, 2010.
- Australian Heritage Commission, Australian Historic Themes. A framework for use in heritage assessment and management. Canberra, 2001

Unpublished material (Provided by AGM)

- AGM Aircraft Listing
- AGM Archive Room Shelving Storage (plan)
- AGM Assessment of Significance May 2007
- AGM Newsletter No.43
- AGM Preservation Survey July 2007
- AGM Wood & Fabric Courses – introductory notes
- Aircraft Collection Status
- Archive Register – other than magazines
- AGM New Archive Numbered Boxes 24-04-2022 spreadsheet
- Catalogue Register 1 January 2017
- CHG Grant Application
- Fabric Replacement Worksheet Rev 6
- Ian Grant, HAW Significance Assessment Questionnaire
- Victorian Collections item data export spreadsheet

Internet websites

Wikipedia

Gliding Australia

TROVE

Victorian Collections

Books

Ash, Allan. *Gliding in Australia*, Hawthorn, VIC: Hudson 1990.

Gliding Australia Magazine

Journal of Aeronautical History

Appendix 1: Summarised list of gliders and their originality, significance and condition

Some listings have a ?, or 'more information needed' against them so the numbers below do not always add up perfectly

Type	Number	Degree of originality Original Restored original Reproduction Replica	Significance Association Technical attributes Representative	Condition level 1. Excellent, ready for exhibition 2. Used / well cared for, suitable for exhibition 3. Under restoration, not ready for exhibition 4. Deteriorated and unstable 5. Derelict
Pre 1929 Kites and Hang Gliders	3	Reproduction - 3	Representative - 3	Level 2 – 1 Level 3 – 1 To be confirmed - 1
1929 to 1949 Primary gliders and early sailplanes	9	Original - 2 Restored original - 6 Reproduction - 1	Association - 6 Technical - 1 Representative - 7	Level 1 – 1 Level 2 – 1 Level 3 – 6 Level 4 – 1
1950 to 1960 Early modern	14	Original – 9 Restored original – 5 Reproduction -	Association – 3 Technical – 3 Representation - 7	Level 2 – 4 Level 3 – 5 Level 4 – 3 Level 5 - 3
1961 to 1975 Modern	19	Original – 13 Restored original – 3 Reproduction -	Association – Technical – 1 Representation - 13	Level 2 – 8 Level 3 – 4 Level 4 – 1 Level 5 - 3