

PATHFINDER



AIR POWER DEVELOPMENT CENTRE BULLETIN

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ONE FAMILY'S LONG AIR TRADITION

Most Australians do not hold an image of their country as having been abreast of world class innovation and achievement, especially a century ago. This was certainly not the case in the field of aviation. Apart from the significant experimental research into aeronautics conducted from 1893 outside Wollongong, New South Wales, by Lawrence Hargrave, there is the outstanding example presented by a young Victorian engineer named John Robertson Duigan (1882–1951).

After obtaining electrical and motor engineering qualifications in England in 1902–05, Duigan returned to Australia in 1908 and briefly took employment with a Melbourne firm of electrical engineers. Later that year, however, he moved to a family property called 'Spring Plains' at Mia Mia, near Lancefield, and there embarked on a series of remarkable experiments into flight.

During 1909, Duigan began work on a powered biplane along Farman lines, using local timbers and a 20hp engine built in Melbourne. In this machine he achieved a 'hop' of six metres on 16 July 1910—the first flight of an Australian designed and built aircraft. By early October the machine was achieving distances of nearly 183 metres at an altitude of three to four metres.

Learning that the Department of Defence had, in September 1909, announced a competition with a £5000 prize for the invention of a 'Flying Machine which is adjudged...to be...the best and most suitable for Military purposes', Duigan initially thought to enter his aircraft. He was, however, deterred by one of the conditions stating that entries must be capable of 'poising'. By the time he discovered that this meant merely the capability of turning within a half-mile circle, the closing date of 30 June had already passed.

Duigan submitted a late entry in August, but was ruled out of contention. The Defence Department nonetheless asked for a demonstration of his aircraft, which took place in May 1911. Later that year, the machine completed the last of some 60 flights, reaching about half a mile at heights of 18 metres. It was not

flown again and in 1920 Duigan donated it to the Science Museum of Victoria.

After learning to fly in England during 1912, he returned to Australia with his younger brother Reginald Charles Duigan (1889–1966) bringing with them an engine that they planned to use in a new aircraft of their own design. When flown at Keilor early in 1913 the machine crashed and John Duigan was badly bruised. Although repaired, it was not flown again before the brothers tried to sell it to the Defence Department for training use at the Central Flying School, Point Cook; the offer was not taken up.

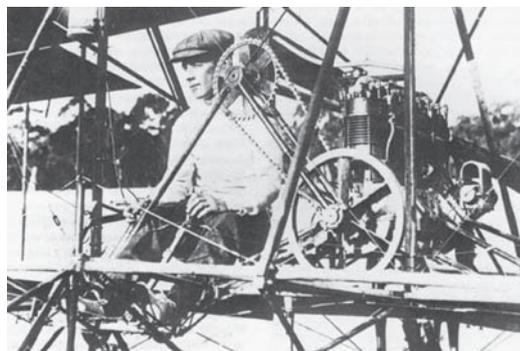
In March 1916, Duigan was commissioned as a lieutenant in the Australian Flying Corps (AFC) and proceeded overseas in October as a flight commander in the newly-formed No 3 Squadron. Promoted to captain in August 1917, he went with the unit to Cambrai, France, in September and was in action by the end of the following month.



Captain John Duigan, MC

On 9 May 1918 the R.E.8 reconnaissance machine that Duigan was flying was set upon by four German aircraft over Villers-Bretonneux. Although severely wounded,

he managed to beat off his attackers—enabling his observer to shoot one of them down—and landed safely. For this feat, he was awarded the Military Cross. After recovering from his wounds, Duigan went to No 7 Training Squadron at Leighton, England, and was commander of that unit for several weeks in December 1918.



John Duigan at his aircraft's controls

After the war Duigan worked as an electrical engineer and ran a motor engineering business in Yarrowonga until 1941. During World War II he worked for the RAAF in

its quality control branch in Melbourne. On 28 May 1960, nine years after he died of cancer, a memorial to his first flight was unveiled beside the Lancefield road by Air Marshal Sir Richard Williams.

This was not the last that the RAAF heard of the Duigan clan. In May 1940 the second son of Reginald, Terence Lawless Duigan (1916–2006), joined the wartime RAAF. ‘Terry’, as he was known, had actually enlisted at the start of World War II in September 1939 but was not called up until after he graduated from Melbourne University with a Bachelor of Architecture degree.

After receiving his wings in November 1940, Duigan was sent to Rathmines, New South Wales. There he converted onto seaplanes before being posted to No 11 Squadron at Port Moresby to fly Short Empire flying boats on patrol around New Guinea and adjoining islands. He was commissioned in July 1941.

Returning to Rathmines, Duigan converted onto PBY Catalinas, which had also been added to No 11 Squadron and, after undertaking other courses, was back in New Guinea by late January 1942 at the rank of flying officer. He left Port Moresby when the last Catalinas were withdrawn in early May, joining the rest of the squadron in its new base at Cairns in north Queensland. He was mentioned in despatches in December, and granted acting rank of flight lieutenant.

In March 1943, Duigan was captain of a Catalina sent to locate and shadow a Japanese troop convoy that had just left Rabaul bound for the north coast of New Guinea. At 2200 hours on 2 March, the RAAF aircraft found its quarry and maintained constant watch for the next four and a half hours, before approaching daylight required that they turn for home. Before the crew did so, they dropped their bomb load to add to the consternation of the Japanese. The convoy was duly picked up the next morning and subjected to a devastating attack by a combined air armada of American and RAAF squadrons in what has become famous as the Battle of the Bismarck Sea. For his part in this action and other service in this period, Terry Duigan was awarded the Distinguished Flying Cross.

Following a time as an instructor at Rathmines, in 1944 Duigan became one of the first RAAF pilots converted onto the B-24 Liberator and served on this type at Port

Moresby, Darwin and Morotai. He was in the US when the war ended, waiting to ferry a new Liberator to Australia.

Terry Duigan pursued a post-war career as an architect in Geelong, Victoria, until he retired. In 1990, on the 80th anniversary of the first Duigan flight, he took it in hand to add a second plaque to the original monument on the Lancefield road. It was he who also designed a monument erected in Cairns to honour the Catalina pilots and crew who made the ultimate sacrifice during World War II. Terry Duigan died in June 2006, sadly bringing to a close an extraordinary link to a little-known past of Australian defence aviation.



Terry Duigan at Mia Mia memorial, 1990

- *After designing and flying the first Australian-built aircraft in 1910, J.R. Duigan served with the AFC in World War I and worked for the RAAF in World War II*
- *His achievement is commemorated with a monument near Lancefield, and a replica of his aircraft is on display in the new Melbourne Museum campus of Museum Victoria*
- *Duigan's nephew, T.L. Duigan, played a notable part in the Bismarck Sea battle of 1943 as a RAAF Catalina captain*

Good airplanes are more important than superiority in numbers.

*- AVM J.E. Johnson,
WWII RAF fighter ace (1915–2001)*



Air Power Development Centre
Level 3, 205 Anketell Street
TUGGERANONG ACT 2900

Ph: 02 6266 1355 Fax: 02 6266 1041
Email: airpower@defence.gov.au
Web: www.raaf.gov.au/airpower

