

AIRMINDEDNESS: SELLING A NEW KIND OF TECHNOLOGY TO THE AUSTRALIAN PUBLIC

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'Airmindedness' is not a word found in every day speech. It may never have been common but there was probably a period during the late 1930s when most people had some idea of what it meant.

The men who founded aviation in Australia do not themselves seem to have used the word when they started on their project to popularize aviation. This may have been because it took them time to realize that what they wanted to say could be encompassed in a single word so at first they used phrases to say what they had in mind. For example, one of the first supporters of aviation in Australia, W M Hughes, called himself 'a fanatic in my belief in aviation'¹ Charles Ulm said that his flights with Kingsford Smith were important because they were the way in which 'an aviation sense can best be roused in Australia'.² Another pioneer, H C Ittershagen, said that he hoped to be successful in 'opening the minds of the people of Western Australia to the vast possibilities of air transport'.³

Over time words did come into use to express the idea which the aviation pioneers had in mind. They included 'flying spirit', 'air sense' and 'air spirit' as well as 'airmindedness'.⁴ However 'airmindedness' seems to have been the most popular of them and the one to become most widely used.

The word 'air-minded' first seems to have been used in Australia in June 1926, in an article copied from the British aviation journal *The Aeroplane* into its Australian counterpart *Aircraft*. CG Grey, the editor of *The Aeroplane*, wrote: 'And that is the kind of propaganda that we want to-day, to educate the public, and make them air-minded'.⁵ This new coining did not spark instant imitation because the next use of the word I have found in print was in May 1930 when the *West Australian* reported a local pilot who remarked on 'The "airmindedness" of the West Australians...'.⁶ The word was enclosed in quotation marks, suggesting that it was considered unusual at the time. However, in 1939 a cat managed to stow away in the wing of an aeroplane and had a free flight from Brisbane north along the coast. The press it was called 'an airminded cat'.⁷ This light-hearted use of the word suggests that between 1930 and 1939 it had become familiar to most people in Australia even if they did not use it themselves in every day conversation.

'Airmindedness' is a state of mind. The men who founded aviation in Australia thought of it as a condition in the public consciousness which would encourage people to use aviation; to travel in aeroplanes and to send their mail and their freight by air. An airminded society would be one which supported aviation, could see its advantages and understood that prosperity and development lay in using the air. Qantas put this attitude simply with a motto, 'The future is in the air'.⁸

Later on airmindedness became something else. Instead of being useful but still something separate, aviation became ubiquitous. It became a way of thinking about the world which included the use of air transport and the threat of air power as an everyday reality. It was

not a simple enthusiasm for or a curiosity about aviation, it was the unthinking use of aviation as a tool in the same way that other technologies are tools for shaping or relating to the physical world. If we have trouble in recognizing this as something unusual it is because our society has become so thoroughly airminded that we find it difficult to think in any other way. Nobody thought this way in 1919 when civil aviation started in Australia.

Aviation does not exist outside society, it exists to serve social needs. 'The only reason we operate aeroplanes is because we carry a payload,' said an airline executive in 1929.⁹ The availability of machinery able to perform particular functions may depend on their invention, but machines will only be used if people see some advantage in using them. In addition, further development of the machine will depend on whether there is any encouragement to go to the trouble. Evidence from the development of aviation in Australia makes it clear that airmindedness was created. At first this was deliberate, later on it simply became part of the way in which the aviation industry went about its business. Since airmindedness is at the center of our use of aviation, and since this world-view was created, this suggests that aviation is a socially constructed technology.

The way in which a technology develops depends on the values and priorities of the social, political and economic environment in which it exists. In Australia, for example, the Commonwealth Government subsidized the development of aero clubs in the 1920s partly because of an Australian inclination to do what Britain did but also because it wanted to provide the country with a pool of trained pilots who might serve in the defense forces if necessary.¹⁰ These two influences ensured the survival of aero clubs but also dictated the shape that they would take. In 1934 and 1938 the government reorganised Australia's internal airline networks as a result of the British Government's decisions about empire wide air mail services. These developments changed the way in which aviation was organized and funded in Australia and brought about the introduction of new types of aeroplanes. The social and political situation decided what kind of aeroplanes - the most obvious manifestation of aviation technology - were going to be used, not the other way around.

From our perspective at the end of the Twentieth Century it probably seems inevitable to us that the technology of aviation would be successful and take the shape that it has. The success which we can see was not, however, so obvious to those involved in establishing aviation. These men faced a world which knew virtually nothing about what aviation could do or the conditions which would be necessary for its successful establishment. There was often government and business apathy and, on occasions, direct opposition from well established industrial concerns such as the government railways. In late 1931 *Aircraft* proclaimed:

The time is coming when Aviation in Australia will have to fight for its life. There are misguided interests which do not like aeroplanes. There have been indications in the past few weeks that in some quarters there is a keen desire to scrap the airways so that our grandchildren will be forced to the unutterable weariness of traveling everywhere by train.¹¹

We know that the railways were not successful in stopping commercial aviation. We are not, however, so well aware of the ways in which the promotion of aviation to resist that threat affected us. The promotion of airmindedness was part of that process of resistance so part of the way in which we think about aviation has been shaped by reactions to a threat from almost sixty years ago. It is as though there is a primary effect which we know about (the popularity of air travel and the decline of long distance passenger rail travel) and a secondary effect (the everyday and almost unthinking acceptance of aviation as part of the fabric of modern Australian life).

This kind of social process has not been limited to the construction of aviation. Other technologies have found their ways into everyday use in a way which we hardly notice but our attitudes to them have probably been created in the same sort of way. Contemporary Australians are car-minded, telephone-minded and TV-minded in the same way that they are airminded. Historians who ask how these other 'mindednesses' were created might usefully show how our technologically dependent society came to be the way that it is and perhaps help in confronting the problems which are now arising as a result of that dependence by showing their causes.

The story of the development of airmindedness in Australia is one which spans three generations and two world wars, not to mention four continents and a few islands. Unfortunately the short time I have means that I will have to leave out most of the really exciting bits.

Airmindedness in Australia developed in three stages. First were the men who introduced aviation to Australia and formed a deliberate policy of making the Australian public airminded. They decided which attributes aviation would have to have to be acceptable to the public but also the new public attitudes which would have to be created to support the development of the new technology. They were followed by a generation which had not known a world without aviation and had become educated in the notions of what airmindedness meant so that they took it for granted. Third was the generation born, after the Second World War, which had never known a world in which people had not been airminded and so took even that attitude of mind for granted. Of these three periods the most important is the first because it established the basic attitudes of the generations which followed.

The creation of an airminded society was not an end in itself but a means to an end. A few young men returned to Australia after the First World War with an enthusiasm for flying and a hope that they could continue with it. They needed to find a way to support their habit. Some were lucky enough to find positions in the air force which was being set up but the rest had to attempt to survive in the civilian world. The obvious thing to do was create public interest in aviation so that people would use it and pay for it.

If aviation was to be used and paid for it had to fulfil three main conditions. It had to be safe, it had to serve a useful purpose and people had to know about it. Of these three the most important was publicity, but it had to make people think about safety and usefulness when they thought about aviation.

To most people the obvious thing about aeroplanes was that they depend on forward motion to stay in the air. If the engine stops or something else breaks the aeroplane will fall to the ground. All the forms of transport which people had previously known simply came to a halt if the mechanism stopped working and in most cases repairs could be made without anyone's life or property being endangered. This fundamental difference in the nature of aeroplanes made them appear dangerous and this image of unsafety was enhanced by the apparent fragility of early aeroplanes which, in Australia up until the mid 1903s, were almost invariably made out of wood frames covered with canvas and held together with wire bracing.

People had to be convinced that aeroplanes were safe even if their engines stopped, that wings did not come off and that other parts did not break easily. These inherent and largely unavoidable problems in how aviation looked to the public had to be overcome because it seemed obvious that people would not trust their lives or their property to aeroplanes which could not carry them safely.

The basic limiting factor on aviation was the weight of useful load that an aeroplane could carry and the cost of carrying it. An aeroplane has to expend energy to lift weight off the

earth's surface and so it is not as cost effective as other forms of transport which simply push payload across the surface of the planet. On the other hand aviation offered advantages in speed of travel and the ability to fly over any surface obstacles. Because of these problems and advantages there were only a limited range of things which aviation could usefully do. There was no advantage in sending bulk raw materials such as iron ore or wheat by air since no aeroplane could carry enough to justify the expense. On the other hand, a cheque lying in a mail bag in a steamer which took a month to travel between London and Australia was unemployed capital. Similarly, the delivery time of a small replacement part for a piece of machinery would dictate how long a production plant was out of operation. In cases like this aviation might be very useful. The time saving of aviation might also attract travelers if they needed to reach their destinations quickly and if they could afford to pay the additional cost for air travel.

Publicity was necessary to tell people how aviation might be useful and to convince them that flying was safe. There were four broad areas in which aviation publicity occurred to make the Australian public airminded. They were publicity generated by the use of aeroplanes, publicity through the media, publicity by legislation and publicity by fear.

Publicity created by aeroplanes was probably the most obvious way of attracting public attention. There were air shows, races and other adventures. Less obvious but having a more lasting impact were the aeroplanes used on the regular air routes. In 1936, towards the end of the first phase of the development of airmindedness, a number of large shipping companies formed a consortium which established Australian National Airways with enough capital to modernize aviation in Australia. They imported large and expensive American airliners to replace the older British designs made out of wood, canvas and wire. These new aeroplanes were all metal in construction with powerful engines and seating for up to 21 passengers. Just as impressive was the fact that they flew eighty or ninety miles an hour faster than the aeroplanes previously used on Australia's internal air routes. In comparison to the older wood and canvass aeroplanes these polished metal monoplanes looked and sounded safe. Several years later, when the first Douglas DC-3 arrived in Australia, it went on a good-will tour of all the state Capitals and thousands of people went to the aerodromes to see it arrive.

This new image of aviation was enhanced by the fact that the crews of airliners started wearing uniforms. For the first fifteen years of aviation in Australia pilots wore helmet, goggles and overalls or, if their cockpit was enclosed, street clothes. They were also called Mister or Pilot. With the introduction of uniforms with insignias and marks of rank the crews of aeroplanes were called Captain and First-Officer which are nautical terms with a sense of seniority and authority. This new public image was adopted by other airlines as they also introduced new high performance aeroplanes.

Another notable innovation linked with the new metal aeroplanes was the introduction of air hostesses on the largest airliners. These women, wearing smart uniforms and smiling gaily, started to appear in the women's pages of newspapers. They were seen as women with exciting and glamorous careers which girls might emulate and their routines during flight and in caring for passengers on the ground were reported in detail.

Publicity through the media was most obvious in the news columns of the daily press, there was hardly a day in which some item about aviation was not published. Other items which appeared in the daily press which fostered airmindedness were the advertisements which connected aviation with the rest of the world. Oil companies used successes in aviation to sell oil and petrol to motorists. Much more powerful were advertisements for products like 'airman'

'shirts and 'aeroplane' jelly or lifestyle advertisements for cigarettes or alcohol. An advertisement for cigarettes using the image of an aeroplane in the background linked aviation's sense of modernity with the act of smoking but, of course, it worked the other way as well so that those people who wanted to enhance their self esteem and image by smoking also associated aviation with that style of life.

The cinema also encouraged people to think about aviation with popular movies like *The Dawn Patrol* and *Wings*. More subtle but just important was the inclusion of aviation in other movies. At least four Fred Astair and Ginger Rogers movies come to mind which use aviation. The most obvious are *Flying Down to Rio* which includes a large production number using aeroplanes but also other aviation elements, and *The Dancing Castles* in which Fred ends up killed in a flying accident. Two others involved aeroplane flights of one sort or another as part of the plot line and so the millions who went to see these movies could not help but connect the glamorous lives which these people lived with aviation.

Publicity through legislation was the backbone of the attempt to make Australian airminded. The people who founded aviation in Australia convinced the Commonwealth Government that it should legislate to regulate aviation and provide a civil aviation administration to make flying safe. They claimed that without legislation 'a man could break his neck without breaking the law'. Members of Parliament asked questions and made statements to push the government into creating laws. One of them said that a serious aviation accident would set back the progress which had been made and that investors were not likely to provide capital for an enterprise which lacked public confidence.

The Commonwealth Government's *Air Navigation Regulations* came into force early in 1921 and set minimum safety standards for aeroplanes, pilots, mechanics, aerodromes and flying practices. After that no pilots or unsafe aeroplanes were allowed to fly. Although this forced some people out of aviation it allowed those who remained to claim that their safety was guaranteed by the law. Details of these regulations appeared in the press so that everyone could read them and it was not uncommon for changes to the regulations to also be noted in the press.

Fear of aviation probably had a different effect but it certainly got people's attention. People started reading about aerial bombing of civilian targets in the mid 1930s in reports of the wars in Spain and China where cities were destroyed by massed air attack. The dangers of bombing were emphasized when the Royal Air Force conducted exercises over London and found that it was very difficult to stop a determined bomber attack.

In Australia the Commonwealth Government enlisted the support of State Governments to establish Air Raid Precautions organizations. Details of the structure and functions of these organizations were discussed, films shown and meetings held. In Perth a committee of people who believed that the population was not sufficiently aware of the dangers of air attack chartered an aeroplane and sent it for high altitude flights over the city. They asked the public to try spotting this high flying aeroplane as a reminder of what might happen. People became used to seeing pictures of people in gas masks in the newspapers and reading about Air Raids Precautions as the world moved towards war.

By 1939 aviation had become a small but important part of Australian life. It brought the outback to the city and connected Australia to the center of the Empire with three air services a week. It had taught people to look up into the skies at aeroplanes going about their business and had then told them that that business was so routine that it was hardly worth noticing. Nobody in Australia could be ignorant of aviation and what it could do. More importantly, the emphasis on

safety and usefulness had encouraged people to use aviation for travel, communications and recreation. Business had become used to using aviation to make the best use of its leaders and its capital. This practical application of aviation, an awareness of what it could do and a willingness to use it, was what the founders of aviation had hoped to create and what they had meant by an airminded society.

Towards the end of the 1930s the men who had founded aviation in Australia believed that they had achieved what they set out to do. A H Cobby, a member of the Civil Aviation Board, concluded a long review of civil aviation in Australia from 1909 to 1938 on a note of triumph:

Australia has reason to be proud of her progress in Civil Aviation and the standard of efficiency attained to date. Recent years have seen amazing advancement in the reliability and development of aircraft as a means of air transport. Co-incident with this progress science is continually evolving measures to assist the aeroplane to counter the elements and so by increasing its safety factor commercial aviation continues to win adherents to its already big army of followers.

All honour to Australia's heritage in Civil Aviation goes to those illustrious pioneers of aviation in this country who helped to win the airmindedness of the Australian public.¹²

Cobby and other pioneers had known a world without aeroplanes. Norman Brearley, the pioneer of aviation in Western Australia, was twenty before he saw an aeroplane in flight. To these men and their contemporaries flying was something totally new and some people thought that resistance to it was a 'perfectly natural' prejudice that people had accumulated over the centuries.¹³ Perhaps the solution lay in the future:

It may not be until the rising generation matures that the fact that the air has been opened up as a new highway will be generally accepted by the people.¹⁴

Even though the eighteen year old young men who were learning to fly in 1939 had been born in the same year that subsidized air services commenced in Australia they were surrounded by and guided by people who had experienced aviation as something new and novel. The experiences of these young men changed their attitudes, and the greatest influence upon them was the Second World War.

By the time the war concluded there were over 170,000 men and women in the Royal Australian Air Force.¹⁵ About another 44,000 people also gained direct experience of aviation by being employed in the wartime aeroplane manufacturing industries.¹⁶ Soldiers on almost every battle front became accustomed to seeing and experiencing tactic air power. They were increasingly transported by air and munitions were also increasingly carried by air. By the end of the war the Royal Australian Air Force alone had a strength of 209 transport aircraft, only about forty less than the total strength of the air force at the beginning of the war.¹⁷ Australians all around the country and in the services overseas became used to mounting watches against air raids and reading or hearing reports of them.

Civil aviation services were cut drastically during the war and seats were very difficult to get. Even so, there was not a person who was not effected by aviation during the Second World War. At times the news of victories in the air was the only good news that could be had, later in the war the strategic bombing of Germany was the only way in which the Western Allies could contribute to the eventual German defeat. During the war the public perception of aviation changed. Instead of being a novelty, a source of vicarious adventure or the play thing of the rich,

it became a vital national necessity.

The onset of peace saw the beginning of rapid developments in civil aviation. Initially this occurred simply because of the ready availability of transport aeroplanes, people trained to use them and a vastly improved infrastructure including aerodromes, aviation radio and air traffic control - all a legacy of war time expansion. It gave the airlines much greater capacity than they had ever had and this meant that there were more opportunities for people to fly. For the first time many of the less prominent regional centers around Australia got regular air services. On the national level Australian National Airways' domination was challenged by TAA which provided competition on all the major air routes. International air travel started to grow and by the late 1940s the Commonwealth government had plans to spend £5 million on the development of Sydney Airport to meet this international demand, two and a half times the total amount of money spent on civil aviation between 1919 and 1939.

In the post war period there were many developments which helped to advertise aviation and create a new level of airmindedness in Australian society. The two most important was the introduction of cheaper air fares and large American pure-jet airliners.

Until the mid 1950s there was only class of passenger travel on Australia's airlines, First Class. Airline managers had not tried to encourage everyone to fly, only those who could afford the relatively high prices being charged. In the mid 1950s Ansett Airways started to provide Second Class seats at reduced rates on tourist routes along Australia's eastern coastline. ANA and TAA held back at first but eventually joined in and offered second class travel at reduced rates. This made airline seats available to people who had not been able to afford them before and gave many more people the opportunity to participate in air travel personally. People who had been made airminded by the events around them and the efforts of people in the past could now participate in aviation for themselves.

Equally important was the introduction of a completely new class of aeroplane embodying all the advances in aviation technology which had taken place since the American metal aeroplanes had first arrived in Australia in 1935. The Boeing 727 had a trans-continental range and a speed which reduced travel times to those which would have been beyond the imaginations of aviation's pioneers. More importantly, these aeroplanes were extremely large by the standards of the day with the second generation Boeing 727 able to carry around 150 passengers. This large capacity, along with Second Class passenger fares, brought aviation even closer to ordinary people.

By about 1960 a form of airmindedness had developed in the Australian community which the founders of aviation in Australia would have found difficult to understand. It was not the sympathetic curiosity of the late 1930s which supposed that aviation had its uses, but usually for someone else. The use of aviation in the early 1960s was the kind of thing that everybody would do if they could afford it. Interstate passenger shipping and international passenger shipping was wiped out and passenger train services were dramatically effected. These changes in society were made possible by the aviation technology introduced into Australia from America but the will to make those large aeroplanes and the willingness of local airline companies to invest in them was the result of strong support for aviation which was the result of this kind of airmindedness.

Sometime after the 1930s the word 'airmindedness' slipped out of the language because it was no longer needed. Australians had become so airminded that to use the word to describe them would have been as useless as referring to all people as 'bipeds'. It is so true that it is

obvious.

ENDNOTES

1. *Commonwealth Parliamentary Debates*, Volume 93, 9 September 1920, p.4393.
2. *West Australian*, 11 August 1928, p.19.
3. *West Australian*, 27 July 1929, p.17.
4. *West Australian*, 11 November 1924, p.5; *Aircraft*, April-May 1928, p.477; 'Air League ...'.
5. *Aircraft*, 1 June 1926, p.192.
6. *West Australian*, 24 May 1930, p.15.
7. *West Australian*, 25 January 1939, p.15.
8. 'Airways Advancements - some Considerations of Policy', Qantas Empire Airways, 1935, National Archives of Australia (hereafter NAA), CRS A461, F314/1/4.
9. Richard K Smith, 'The Weight Envelope: An Airplane's Fourth Dimension', *Aerospace Historian*, March 1986, p.31.
10. *West Australian*, 4 March 1926, p.10; *Aircraft*, 1 May, 1926, pp.157-8.
11. *Aircraft*, 6 April 1931, p.6.
12. *Aircraft*, 1 March 1938, p.34.
13. *Aircraft*, 1 May 1926, pp.154-5.
14. Ibid.
15. Royal Australian Air Force, 'Australian Air War Effort', 10th Edition, 31 August 1945, p.16. NAA CRS A5954, Box 297.
16. These figures have been calculated from the monthly reports of the Department of Aircraft Production and various aeroplane production submissions to the War Cabinet, NAA, CRS A2671.
17. Royal Australian Air Force, 'Australian Air War Effort', 10th Edition, 31 August 1945, pp.22-4, NAA, CRS A5954, Box 297.