



HISTORY OF AIR FORCE AEROMEDICAL EVACUATIONS

Generally speaking, air evacuation proved to be the ideal method of transporting wounded. The transportation of patients by air required 21 times fewer personnel than were required to transport the same number of patients by sea.

— SQNLDR Frank Kiel, RAAF Medical Officer 1942-47

Over the last century, aeromedical evacuation (medivac) has evolved, like other aspects of air power, from a concept to a major Air Force capability. Tactical medivac, which is the evacuation of wounded from the place of injury to medical facilities within the Area of Operations (AO), has been carried out by various military services since World War I; however, strategic medivac (from the AO back to permanent facilities in Australia or another allied country) had to wait for the development of longer range aircraft in World War II.



Air Force nursing sister and medical orderly attend patients in World War II medivac Dakota.

Prior to World War II, Air Force medivac flights were carried on an ad hoc basis with improvised equipment when suitable aircraft were available. When the Second Australian Imperial Force (2 AIF) deployed to the Middle East in 1940, the great distances within the AO and the scarcity of medical facilities demanded a rapid means of evacuating wounded soldiers. To meet this demand, the

Air Force raised No 1 Air Ambulance Unit (1AAU) at RAAF Laverton, equipped with three DH-86 Express former airliners. These four-engined aircraft were fitted for aerial ambulance work under the supervision of FLTLT George Simpson, a former doctor with the Royal Flying Doctor Service (RFDS). The unit flew its first medivac mission in the Middle East on 3 August 1941 and supported the British Eighth Army in its campaigns across North Africa, Sicily, Malta and Italy, evacuating 8252 patients to safety.

In the Pacific theatre, No 2 Air Ambulance Unit (2AAU) flew its own Hudson, Gannet, Dragon and later Dakota aircraft on missions evacuating wounded from Papua New Guinea (PNG) to Australia. By 1943, the large number of casualties from heavy fighting required an expansion of the medivac organisation; however, under the Geneva Conventions, dedicated air ambulance aircraft displaying the Red Cross insignia could not be used to carry any non-medical equipment or personnel. Any increase in the number of dedicated air ambulance aircraft would have reduced the Air Force's air transport capacity at a time when it was needed most, therefore, the expansion was not undertaken.

The solution was to form units of medivac-trained personnel who utilised any available aircraft to conduct medivacs. From late 1944, No 1 Medical Air Evacuation Transport Unit (1MAETU) at Lae, PNG, 2MAETU at Morotai in the Dutch East Indies and 3MAETU at Townsville formed a chain to evacuate patients from the South-West Pacific battle zones to major hospitals in Brisbane. Evacuations from coastal and island locations were often conducted using Sunderland or Catalina flying boats, but the majority of medivacs were done using the faithful Dakota aircraft. Medical units at major airfields cared for the patients between flights. Thus by late 1944, the Air Force was operating a major strategic medivac organisation that carried more than 14 000 patients to medical care in Australia. The medivac role was not without risk though, as several flights and their crews and patients were lost in accidents.

With the end of hostilities in August 1945, thousands of Prisoners of War (POWs) needed medical care and rapid transport to long-term medical facilities in

Australia. Every available aircraft was used for medivac – Liberators, Catalinas and Dakotas. Singapore quickly became the evacuation base, with a hospital set up by Air Force and Army medical staff. Approximately 7800 POWs of all nationalities were evacuated by Air Force units from Singapore to Australia.

During the Korean War, the Air Force used Dakota aircraft from No 30 Communication Unit, later renamed 36SQN, to evacuate wounded Commonwealth personnel from Korea back to Iwakuni, Japan. After stabilisation, the wounded were often flown back to Australia on chartered Qantas DC-4 aircraft with a RAAF nurse and medical orderly accompanying the patients on the 27-hour journey.

In peacetime, the Air Force has often been called upon to medivac civilians. RAAF Catalina flying boats carried badly injured people from islands and isolated coastal communities to major cities. On 9 April 1955, a 10SQN Lincoln bomber carrying a sick baby from Townsville to Brisbane, crashed into the side of Mt Superbus in south-east Queensland, killing the crew of four, the baby and a civilian nurse.

In 1962, Iroquois helicopters introduced a new medivac capability to the Australian Defence Force (ADF). The ADF's first operational experience in helicopter medivacs came in 1964 when 5SQN Iroquois supported Commonwealth operations against Communist insurgents in Malaya. The lessons learned in the jungles of Malaya were put to the test in Vietnam where 9SQN crews flew in excess of 4000 medivac – code named 'dust-off' – missions to bring wounded soldiers back to medical facilities at Vung Tau or Bien Hoa. An Air Force or Army medical orderly usually accompanied each dust-off flight.

As well as providing a huge increase in airlift capability, the C-130 Hercules aircraft was a major advance in aeromedical evacuation. Faster, with longer-range and pressurised, the Hercules could fly medivac missions that were impossible in earlier transport aircraft. During the Vietnam War, wounded soldiers in field hospitals were evacuated to Australia by C-130 usually with an overnight stay at No 4 RAAF Hospital at Butterworth. Many Air Force medical personnel also gained experience with a United States Air Force medivac squadron at Clark Air Force Base, Philippines.

The medivac experience gained in the Vietnam War came to the fore in a number of national disasters. When Cyclone Tracy devastated Darwin in 1974, Air Force C-130s and medivac crews evacuated approximately 600 patients on flights to southern cities. Following the bombing of nightclubs in Bali in October 2002, 66 patients, some critically injured, were evacuated by four C-130 Hercules aircraft first to Darwin and then to other civilian hospitals. After a tsunami struck Sumatra, Indonesia on 26 December 2004, Air Force

medical teams evacuated 60 severely injured locals from the devastated area. During the operation, nine ADF members were killed in the crash of a Navy Sea King helicopter, including three Air Force medical staff.



Air Force medivac team prepare for mission in a C-17 in September 2008.

During 12 years of combat operations in the Middle East, the wounded were evacuated from the battlefield to in-theatre medical facilities by various Coalition aircraft including helicopters and C-130s. After stabilisation, they were evacuated to Australia using the regular strategic airlift flights that had brought personnel and supplies to the Middle East. Initially, these utilised C-130 aircraft but later evacuations were done on chartered civil aircraft, regular airline flights and C-17 flights. On all flights back to Australia, an Air Force medivac team accompanied the patients.

Over 90 years of operations, the Air Force has developed extensive medivac experience and capability, which will be crucial to the treatment of the injured in future operations. Following any natural disaster or any other emergency, carrying out mass medivacs will be an important Air Force contribution to the civil community.

Key Points

- *Improvements in ADF medivac capability were largely dependent on the aircraft of the time.*
- *Since World War II, aeromedical evacuation has been an important function of air power.*
- *The Air Force's medivac capability contributes to national Air Power during emergencies and natural disasters.*



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