



ROYAL AUSTRALIAN AIR FORCE

ROYAL AUSTRALIAN AIR FORCE (RAAF) INVOLVEMENT WITH THE ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY (RMIT) UNIVERSITY

The RAAF has had a very long and productive association with Melbourne Technical College, Royal Melbourne Technical College and RMIT University. The following recognises these collaborations.

1939 to 1945 - World War 2

The Melbourne Technical College (MTC) made a significant contribution to Australia's war efforts by training some 20,000 service men and women (approximately one-sixth of all trained in Australia) - mainly RAAF personnel in Radio Communications, and also Aircraft Fitters and Electricians. ⁽¹⁾

These personnel were housed at several locations turned over to the war effort, including the Royal Exhibition Building in Carlton and the Showgrounds at Ascot Vale. After graduation, personnel were assigned to RAAF bases in Australia and overseas or they participated in further training, e.g. in such as radar technology. The Melbourne Technical College Radio School was the leading National educator.

1948 to 1975 - RAAF Radio Apprentices

In 1948 the RAAF established an Apprenticeship Scheme, with apprentices at the RAAF Ground Training School at Wagga New South Wales and at the RAAF Radio Apprentice School at "Frogall" Mount Albert Road, Camberwell, Victoria.



RAAF Radio Apprentices attended the Melbourne Technical College, later becoming the Royal Melbourne Technical College, for their academic tuition towards Associate Diplomas, followed by practical training at RAAF units at Ballarat and later at Laverton, Victoria. Through the Melbourne Technical College, which in 1954 became the Royal Melbourne Technical College and then in 1960 the Royal Melbourne Institute of Technology, some 655 RAAF Radio Apprentices graduated mainly from the Radio School. This was a significant contribution to the overall RAAF technical support capability with many graduates going on to complete higher level engineering education RMIT. Education for RAAF Radio Apprentices finished at RMIT in 1975 with all training then conducted at the RAAF Radio School at Laverton.

1948 to 1961– Radio, Communications, Mechanical and Electrical Engineering

Many RAAF personnel, having mainly graduated from the RAAF Radio Apprentice scheme, were commissioned into the Diploma Cadet Squadron and studied Radio and Communication Engineering at RMIT. Those completing Engineering Diplomas were commissioned in the RAAF Engineer Branch as Radio and Communications specialist Engineers.

RMIT's School of Radio and Communications Engineering was the lead national faculty in this enterprise. ⁽²⁾

Another 40 RAAF personnel based at Laverton and mainly graduates of the RAAF Technical Apprentice Scheme, were commissioned into the Diploma Cadet Squadron and undertook studies in the faculties of Mechanical and Electrical Engineering, which significantly added to RAAF Engineering capability.

Those completing RMIT's Associate Diplomas were commissioned in the RAAF Engineer Branch as Radio, Aeronautical, Electrical and Instrument specialist engineers, and achieved qualifying entry for the Institution of Engineers Australia (IE Aust).

1961 to 1985 - Expansion of Education for Engineering and Business Studies Personnel

This period saw a significant expansion of the collaboration of RMIT in the academic education of some 700 RAAF personnel in the disciplines of Aeronautical, Communication, and Mechanical Engineering and in Business Studies. These personnel were home based at the RAAF's Diploma Cadet Squadron (DCS), later becoming the Engineer Cadet Squadron (ECS) at Frognall, Camberwell. Some of these personnel included graduates from the RAAF Technical and Radio Apprentice schemes, with the majority being direct entry to the DCS and later the ECS. The RAAF occupied Frognall Mansion from 1941, with the establishment of the Wireless/Telegraphy Shadow Station, then the RAAF Telecommunications Unit after 1945.

Those completing the RMIT Associate Diplomas, and from 1973, the Degree Courses, in Chemical, Communications, Mechanical, Electrical and Aeronautical Engineering and Business Studies were commissioned into the RAAF Engineer Branch as Aeronautical, Electrical, Radio and Instrument Specialist Engineers and in the RAAF Equipment Supply Branch.

The RMIT Engineering Schools of Aeronautical, Chemical, Radio and Communications, Electronics and Electrical, and Mechanical, and the RMIT Business Studies were the key RMIT academic centres of excellence. Also, RMIT lecturers conducted subject matter tutorials at Frognall for the RAAF Cadets. The RMIT involvement was highly significant to the development and enhancement of Engineering and Management capabilities in the RAAF.

1985 to 1992 and After Frognall.

The scheme which provided the RAAF with Graduate Engineer and General Officers for 25 years closed on 12 December 1985, with the closure of Frognall. From its beginnings in February 1961 as 'Detachment A' of the Radio Apprentice School, then the Diploma Cadet Squadron (DCS) from 1962, and the Engineer Cadet Squadron (ECS) from 1976, the Frognall unit administered Officer Cadets who were studying for Engineering Diplomas and Degrees at the Royal Melbourne Institute of Technology.

With the closure of the ECS, future intakes of RAAF engineer students attended the new Australian Defence Force Academy (ADFA) in Canberra. Those RAAF personnel still studying at RMIT when the ECS squadron disbanded with the establishment of ADFA in Canberra in 1985 were attached to the RAAF Base Point Cook.

Summary

For over 60 years the Engineers graduating from RMIT provided the backbone of the RAAF's engineering expertise for many years, right up to the present day.. They provided the skills necessary for the acquisition, specification & maintenance of aircraft and associated equipment of highly developed & advanced designs such as, initially, the Dassault Mirage Interceptor/Surface Attack 1110, the F111 Aardvark ("the Pig") medium range interdicator and tactical strike aircraft, the AP-3C Orion aircraft for naval fleet support, maritime surveillance, search and survivor supply and anti-surface and anti-submarine warfare. and more latterly, the F/A-18 Hornet supersonic fighter and attack aircraft, the C17A Globemaster high-wing four-engine heavy transport aircraft., and the P8-A Poseidon multi-maritime mission aircraft.

RAAF Engineers served with operational squadrons in Australia and overseas (including Vietnam and the Middle East). Some reached senior RAAF appointments whilst others with specialised post-graduate qualifications made crucial contributions in the fields of aircraft structures, communications, propulsion, guided weapons, explosives and maintenance management.

Overall, the RAAF could not have raised, sustained or projected its capabilities through the late 20th & early 21st centuries without the contribution of this outstandingly successful Engineering education scheme, primarily supported and delivered by the RMIT. Beyond the RAAF and in adding to the technological & management expertise of the nation, these Engineers contributed significantly to the corporate & public sectors as well as to private enterprise.

References:

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