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RNIOA Article 14a [23-03-2020] Dr Frederick Wheatley CBE RAN

A new book, *Australian Code Breakers* by James Phelps, has recently been published on the fascinating topic of wartime code breaking. As the front cover tells us this is the extraordinary story of a headmaster turned cryptographer, and our top-secret war with the Kaiser's Navy.

The headmaster is Dr Frederick Wheatley whom we know from his time at the Royal Australian Naval College (RANC) both at Osborne House in Geelong, Victoria and at Jervis Bay, Federal Territory. In the Biography of Naval Personalities, he is listed as an early headmaster; contributing much to the success of the establishment of the College at Jervis Bay. He also gains a brief entry in respect of his important code breaking activities in Jose's Official War History.

The RAN was well served by the high calibre of its first instructors who did much to ensure an excellent standard of education was obtained by early graduates of the RANC. Frederick Wheatley features largely amongst these men who were critical in moulding the characters of our first home-grown naval officers and ensuring the development of future leaders who would mature at the time of the Second World War. But what do we really know of this man?

Family Connections

Frederick William Wheatley, was born on 7 June 1871 at Kapunda, South Australia, son of James Edward Wheatley, music teacher, and his wife Wilhelmina Magdalena, née Basedow. James Wheatley died at the family home in Kapunda on 24 November 1878 when his son Frederick was only seven years old. Wilhelmina's unmarried sister, Anna Dorothea, then came to live with and help her sister. Wilhelmina was 12 and her sister Anna 21 when they arrived in Australia. With no English speaking father, it is assumed the two sisters used their native language when at home and that young Frederick developed some fluency.

The Basedow side of the family originated with Christian Frederick Basedow (1805-1886) born in Hanover, he was a school teacher who migrated to South Australia in 1856 with his wife and five of their six children. Their eldest child Martin Peter Frederick Basedow (1829-1902) had arrived earlier in 1848 when aged 19. The Basedow family settled at Tanunda in the Barossa Valley, then an isolated German community known for wine making. Martin was very successful opening a German speaking Lutheran School and later establishing a German language newspaper. He prospered becoming a member of the state parliament and was briefly Minister for Education.

Frederick's secondary education was conducted at Prince Alfred College, Adelaide. In 1890 Frederick joined the teaching staff of Way College in Adelaide and later became headmaster. On 28 June 1898 at St Peter's Anglican Church, Glenelg, he married Alice Ruth Kimber (1874-1942) and they were to have three children. He taught at Prince Alfred College from 1901, studied at the University of Adelaide (B.A., 1904), then transferred to King's College, Goulburn, New South Wales in 1905 and became involved in military instruction as Captain of the senior

cadet unit. Appointed headmaster of Rockhampton Grammar School next year, he resigned in 1911 after clashing with the school board.

In 1910 Captain William Creswell, then Director of the Naval Services, while travelling with Admiral Sir Reginald Henderson (who was advising the Commonwealth Government on future naval infrastructure requirements) called at Rockhampton and sought out Wheatley as a potential headmaster of the yet to be established Royal Australian Naval College. The following year Wheatley was invited to Melbourne and interviewed for this position but was disappointed when the role was given to a gifted mathematician, Frederick Brown, from the University of London. After his resignation from Rockhampton he did help in drafting the academic syllabus and regulations for the RANC.

Wheatley next enrolled at Lincoln College, Oxford, studying the ionization of gases and graduated B.Sc. in 1913; in that year the University of Adelaide awarded him a Doctorate of Science. Before returning to Australia, he visited Germany to improve his knowledge of the language. The young Colonial must have made quite an impression at the prestigious University of Freiburg (founded in 1457) as he was introduced to those in high places; meeting Crown Prince Wilhelmⁱ, Admiral von Tirpitz and General von Hindenburg and was taken on tour to witness German Army manoeuvres.

After returning to Australia on 6 February 1914 Wheatley was appointed senior naval instructor at the RAN College which had recently opened as a temporary facility at Osborne House, Geelong, Victoria. Here he taught mathematics and physics. In the same month his friend from South Australia, and teaching colleague at Rockhampton Grammar School, Morton Thomas Moyes, also joined the College as an instructor specialising in navigation and mathematics.

Naval Intelligence and Cryptography

By 1907 primitive wireless sets had been installed in most British and German warships but it took some while before they were reliable enough to be of significance. However, intercepts of wireless messages and unravelling their primitive codes led to the foundation of a new naval department, Intelligence, whose members no longer had to rely on information from secret agents. On 9 November 1914 Dr Wheatley was seconded to Navy Office, then in Melbourne, to join the new Intelligence section.

With the veil of secrecy about his wartime activities removed, in 1934, Dr Wheatley wrote a paper "Unravelling of a German Code" with the following extract taken from this document.

[Given my language skills] at the commencement of war with Germany I was immediately seconded from the Naval College and attached to the War Office and put in charge of all intercepted wireless messages. All the wireless stations in Australia were taken over by the Navy and placed under the control of Mr Balsillie, a wireless expert. He sent me every wireless message that was intercepted, but as most of them were in an unknown code, nothing could be done but file them for future reference.

On August 4th, the Nord Deutsche Lloyd steamer "Seydlitz" left Sydney hurriedly without her clearance papers, and when news of the Declaration of War came we were convinced that she would endeavour to warn German vessels on their way to Australia. The "Hobart" had left Fremantle, her next port of call being Melbourne, and in order to prevent her receiving messages from the "Seydlitz" every wireless station from Sydney to Fremantle sent out messages continuously day and night.

We were successful and the "Hobart" steamed into Port Phillip. She was boarded by the pilot at the Heads, and with him was Capt. Richardson RAN who placed the Captain under arrest, informing him that we were at war with Germany. The "Hobart" was taken up the harbour and Captain Richardson slept that night in the Captain's cabin. The Captain was given one of the Officers' cabins and allowed his liberty. During the night he came quietly into his own cabin and went to a secret cupboard in the wall. Richardson was ready with his torch and revolver and found the Captain trying to gain possession of a code book.

This was the Code Book H.V.B. (Handels Verkehr Buch) which was issued to all important merchant ships. With it was a sealed envelope, only to be opened on the outbreak of war, and this gave a cypher key to be used for communication with war ships. This book, with the key, was sent to me, and I went through all the messages that had been intercepted, but the information was of little value.

The German Pacific Squadron had come down from Wei Hai Wei and was being searched for by the Australian Squadron. We were able to locate them occasionally by the sound of their Telefunken wireless, but were unable to decode any of the messages intercepted.

Towards the end of October, the Naval Intelligence Officer at Montevideo began to send us messages which evidently came from the German Pacific Squadron. Admiral Craddock of the "Good Hope" also intercepted a number of messages a few days before Coronel. These we also received. Although they would not decode with the key to H.V.B. it was evident that this book was still in use, but that the key had been altered. My duty was to find the new key.

The messages were in ten letter groups made up of two separate five letter combinations. The similarity of the groups in different messages was noted and compared with words in the code book. After working day and night for three days and two nights and filling thousands of sheets of foolscap with letters, I discovered the key. It was impossible to try all the changes that could be made, because any letter could be altered to any other letter and there were 52 million, million, million, million different ways of doing this. At the rate of one a second it would take two million, million, million years to try them all.

Dr Wheatley then goes on to explain the technicalities of how he adopted a system that enabled him to read the German code. On Melbourne Cup Day 1914 he was then able to decode messages from the German Pacific Squadron which gave their itinerary through the Magellan Straits, then to the Abrolhos Islands off Brazil to meet the supply ship Eleanore Woermann (later captured and sunk by HMAS Australia) and then to West Africa.

That night the Admiralty was informed by cable and Lord Fisher immediately ordered the Invincible and Inflexible to refit hurriedly and proceed to the Falkland Islands. They reached there a few hours before the German Squadron and the Scharnhorst, Gneisenau, Nurnberg and Leipzig were sunkⁱⁱ. The Admiralty cabled out congratulations on the discovery of the code and instructed the Navy Office to send a copy of the code book and key to every ship in the British Fleet.

The Naval Board instructed me to take this matter in hand and find the best way to do this. I first interviewed the Government Printer, but he hadn't enough type-setters familiar with the German script and could not promise it under six weeks. The next idea was to have the pages photographed, but this proved unsatisfactory. It was then decided to typewrite on wax sheets and reproduce the requisite number of copies. Twenty girls from one of the typewriting agencies were engaged, sworn to secrecy and installed in a room at Navy Office. Their qualifications were to be able to read German letters and type accurately.

The book of 300 pages was cut up and distributed. Each printed page required three typewritten pages. Four men with a knowledge of German were engaged to read the proofs and then two men with Roneo Duplicators printed two hundred copies of each page. The number of pages printed was therefore $300 \times 3 \times 200 = 180,000$. These had to be collated, arranged in proper order and bound in book form.

The 200 books were finished in 10 days; 100 were sent to the Admiralty, 50 to the Commander in Chief of the American Station, and the others sent to the different ships of the China Squadron and the Australian Navy.

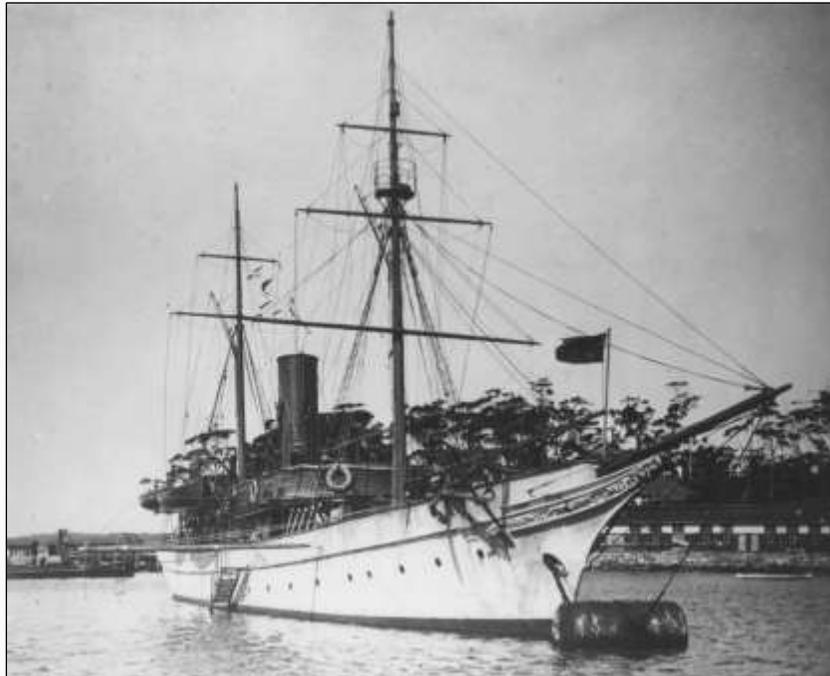
Decline and Tragedy

Following his secondment to Navy Office, Wheatley and his family established themselves at the RAN College now situated at the picturesque but remote Jervis Bay. With the end of the Great War there was a decline in the armed forces and the number of ships and men required by the RAN was significantly reduced. As a consequence, the number of cadets entering the college was drastically reduced, effecting its viability.

All was not well with the academic staff. The Headmaster Frederick Brown and Senior Instructor Frederick Wheatley were never on good terms as Wheatley believed he had first been promised the position held by Brown, and Brown felt undermined by his domineering assistant. This resulted in the remainder of the staff falling into two factions supporting one or other of the protagonists. This unfortunate state of affairs resulted in Mr Brown leaving the College in 1915. He blamed Wheatley and sued for wrongful dismissal – the case never came to court but Brown was awarded substantial damages.

Wartime propaganda resulted in suspicion being levelled against persons of German and Austrian ancestry. The matter of Dr Wheatley's German ancestry was not overlooked by his colleagues especially by another instructor, The Reverend William Hall RN, who was preparing to return to England. In a witch-hunt against possible espionage at the College the Reverend Hall gave evidence that he was suspicious of some of Wheatley's activities regarding his interest in wireless sets. An inquiry found there was not the slightest reason to doubt the loyalty or integrity of any officer at the College.

The Wheatley's had one son and two daughters. Their son Ross was already at Jervis Bay having entered the Naval College in 1914. With a lack of female company Mrs Wheatley took on the task of giving dancing lessons to the young gentlemen and with two daughters there was a steady stream of eager dancing partners coming to the Wheatley household. Amongst these was a 27 year-old Sub-Lieutenant who was chief engineer the College tender HMAS *Franklin*ⁱⁱ who fell madly in love with their 17-year-old daughter Vivian, but she could not tolerate his attentions.



HMAS *Franklin* at Jervis Bay, c. 1915

On the afternoon of 9 March 1916, while the rest of her family were outside at a picnic, Vivian shot herself in the temple using a small pistol. On hearing the shot Dr Wheatley rushed home and Vivian died in his arms. A suicide note was afterwards found by the distraught parents. This tragedy cast a gloom over the whole college.

After getting through these terrible proceedings Dr Wheatley was appointed Headmaster of the College, in 1919, and did his best to ensure a satisfactory standard of education was maintained under quite difficult economic circumstances. He must have succeeded as a respected fatherly figure as he was affectionately known to the students as "Pa". A ray of sunshine came on 22 October 1924 when Lieutenant Cyril Sadler RAN, a hydrographer from the first College entry, married the Wheatley's surviving daughter Phyllis.

The Great Depression of 1929 brought matters to a head resulting in the Government declaring that the Jervis Bay Naval College is to be abandoned on the grounds of economy and in June-July 1930 the college transferred to, and shared facilities, with the Flinders Naval Depot in Victoria. There was no entry to the College in 1931 and staff numbers were also reduced and those remaining had to accept a 12% pay cut which convinced Dr Wheatley that he should retire in December 1930.

The Cranbrook Episode

Dr Wheatley then had the good fortune to pursue another career as Director of Education at Cranbrook School. Cranbrook is a grand mansion situated in manicured grounds in Sydney's eastern suburbs. It was a later starter as an exclusive boy's school first opening its doors in 1918 under the Reverend Frederick Thomas (Polly) Perkins, MA. While Perkins was a popular headmaster the school needed a shake up and Wheatley was brought in to take over instructional duties which allowed the existing headmaster to concentrate on pastoral matters.

Wheatley introduced a new syllabus, changed routines and even introduced a new school uniform. The timing of his arrival, at the start of the Great Depression, and with the old headmaster hovering in the background may not have been opportune. In addition, at the end of 1931 the school along with many others had to implement severe cost reductions which included the salaries of the teaching staff. The Wheatley reforms were not favoured by the teachers and the students and parents were also unhappy. As a result, Dr Frederick Wheatley was dismissed by the School Council on 15 December 1931.

It was left to another military man with an academic background, Brigadier Iven Giffard Mackay (later Lieutenant General Sir Iven Mackay), who took over as headmaster in 1932, to implement these plans. As a bitter aside Iven Mackay was blamed for the slow recovery of the school from the Depression and he too was removed from office under acrimonious circumstances in February 1940. The General then proved his mettle in a distinguished war time career.

Acknowledgement at last

The King's Birthday Honours List (King George V), announced on 3 June 1932 appointed Frederick William Wheatley DSc, lately Senior Educational Officer of the Royal Australian Naval Service, as a Commander of the Order of the British Empire (CBE). And so ended the career of this distinguished educationalist who in retirement was an officer bearer in the Royal Empire Society. He died at Cremorne, NSW on 14 November 1955.

His son Ross Valdar Wheatley OBE, RAN, who joined the Naval College in 1914, later serving as officer in charge of the hydrographic branch and was in command of HMAS *Penguin* for two years before retiring as an Acting Captain in December 1953.

Frederick William Wheatley was a highly intelligent and respected educator. He developed into a father figure who was instrumental in moulding the characters of young graduates from the RAN College during difficult times. They became very useful officers who were tested during the Second World War, when many distinguished themselves in

action and command. The scientific Wheatley lacked some of the humanity more evident in a classical education as a result his reforming zeal was not always as efficiently received as he would have wished. However, in the annals of naval intelligence, he will long be remembered for his significant wartime contribution as the first to break the German naval code.

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i In October 1914 German Crown Prince Wilhelm (Commander of the 5th Army) gave an interview to a foreign correspondent and said in English: *Undoubtedly this is the most stupid, senseless and unnecessary war of modern times. It is a war not wanted by Germany, I can assure you, but it was forced on us, and the fact that we were so effectively prepared to defend ourselves is now being used as an argument to convince the world that we desired conflict.*

ii. *In December 2019, after a search of five years, the wreck of SMS Scharnhorst was discovered about 100 miles off the coast of the Falkland Islands. The Battle of the Falkland Islands on 8 December 1914 followed the Battle of Coronel fought off the coast of Chile on 1 November 1914. In the first battle a British Squadron under Rear Admiral Sir Christopher Cradock was defeated by the German East Asia Squadron commanded by Vice Admiral Maximilian Graf von Spee, in which 1,600 British sailors including Admiral Cradock tragically perished. In the second battle the situation was reversed when confronted with a new British Squadron under Vice Admiral Doveton Sturdee who destroyed the East Asia Squadron with another tragic loss of life, this time of 2,200 German sailors, including Admiral Spee and his two sons.*

iii. The luxury steam yacht *Adele* had been purchased by the Commonwealth from the estate of Mr Henry Hampden Dutton a pastoralist of Kapunda, South Australia in 1915. She was commissioned as HMAS *Franklin* and allocated as a tender to the Royal Australian Naval College.