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WING COMMANDER TINDALE
RAAF 284483

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Abstract

Perhaps best known for his contribution to anthropology, Norman Barnett Tindale was a man of diverse abilities and interests who was ingenious in his development, interpretation, revision and innovative adaption of knowledge throughout his life. This paper demonstrates the uniquely effective approach of Tindale in what has been a little-known episode of his life—his military service. Tindale took leave from his position as ethnologist at the South Australian Museum in order to enlist. While serving with the Royal Australian Air Force (RAAF), Tindale applied linguistic and anthropological methodologies, research skills and field observation techniques to make a unique and highly valuable contribution to intelligence operations in the Pacific Theatre of World War II (WWII). Serving from 1942 to 1946 he established the Air Industry Section (AIRIND), and following the surrender of Japan, Tindale was selected to join the United States Strategic Bombing Survey (USSBS). However, Tindale never lost his dedication and enthusiasm for the South Australian Museum, collecting specimens and recording his observations throughout active service and returning to the Museum after he was discharged.
Introduction

Affectionately known as Tinny, Walter Abraham who served alongside Tindale in both AIRRIND and USBSS, describes him as a humble man with a large frame, warm personality and smiling countenance who emphasised the need for integration and cooperation with all sections of the Military. (Abraham 1996:36)

Tindale’s attempts to participate in wartime service began when a young paper boy holding an ‘Extra’ heralded ‘War’ as he walked by the King Edward statue on North Terrace, Adelaide. After reading about the bombing of Pearl Harbour, Tindale decided to enlist with the Citizen’s Army (Tindale 1989). When he was rejected on medical grounds, having lost the sight in one eye, Tindale produced a confidential letter from the Australian Military Forces (AMF) (4th Military District) requesting that he report to the authorities. The AMF were already aware that Tindale spoke Japanese fluently (Tindale 1941:9). The letter requested that he confirm his level of proficiency in reading Japanese and once he had done so the decision for his rejection was overturned (Australian Military Forces 1941). On 28 March 1942, Tindale was commissioned as Pilot Officer in the RAAF (Department of Defence 1921–1948).

As Tindale maintained a secrecy agreement not to disclose classified information from his war service throughout his life (Abraham 1996:4; Robbins 1967; Tindale 1942–1946a:correspondence 4), the account presented in this article is only possible due to two factors. First, Tindale’s family entrusted his WWII papers along with his professional papers to the South Australian Museum. Secondly, Walter Abraham, who served under Tindale, published his book AIRIND in Retrospect – A RAAF Contribution to Allied Intelligence 1942–1945, in 1996. The book is dedicated to Tindale for his inspiration and leadership. Abraham believed that it was these attributes that led to the success of the Air Industry Section to the Allied War effort in WWII.
The story of Tindale’s WWII service begins and ends with Tokiwamatsu (formerly known as Shimoshibuya), Japan. The definitive factor for his enlistment, despite a medical condition that would normally have precluded active service, as noted above, was Tindale’s fluency in Japanese which he gained having spent his formative years in the country. When returning in 1945 as Wing Commander Tindale (see Figure 1) he discovered the remains of his childhood home after the bombing of Tokyo. There he reacquainted himself with the family of his friend Toshimasa Shimuzu.

Figure 1 Wing Commander Tindale, RAAF 284483, at Stanford Music Bowl, California, 30 September 1945. South Australian Museum Archives: AA 338 Norman Barnett Tindale Collection.
Japan: The Early Years

Tindale was accustomed to the structure of the military from birth. Norman Barnett Tindale was born on 12 October 1900 in Perth, Western Australia, to James Hepburn and Mary Jane (nee Barnett) Tindale, soldiers of the Salvation Army (see Figure 2). The family often moved from state to state but in 1907 Staff Captain James Tindale, an accountant, moved the family to Japan so he could take up the position of financial secretary.

Figure 2 Tindale family in the gardens at Tokiwamatsu (formerly known as Shimoshibuyo), Tokyo, 1915. L–R: Mary Jane (mother, nee Barnett), Norman Barnett, Gordon Barnett, Clifton James, Murray Barnett, James Hepburn (father). South Australian Museum Archives: AA 338 Norman Barnett Tindale Collection.

Tindale spent his formative years in a country between two wars; arriving after Japan’s victory over the Russians (Russo-Japanese war 1904–1905) and departing, as many other families did, with the outbreak of WWI. This period not only exposed the young Tindale to the harsh reality and consequences of war, but also inspired a passion for Japanese culture and language, and ignited his enthusiasm for collecting.
The Tindale family first resided in Hongo, one of the poorer suburbs north-west of Tokyo, near the military parade grounds. On one of their afternoon walks the brothers were drawn by the sounds of general clamour and the national anthem to a crowd of spectators gathering. Unfortunately the spectacle they subsequently witnessed was the public beheading of court-martialled Japanese soldiers (Walter 1988:16). After the young Tindales reported what they had seen, Mary and James wasted little time in relocating the family to Shimoshibuya (now called Tokiwamatsu) (see Figure 3).

*Figure 3* Home of the Tindale family in Shimoshibuyo (now called Tokiwamatsu) 1907–1915. South Australian Museum Archives: AA 338 Norman Barnett Tindale Collection.
In Shimoshibuya the family quickly settled into the Japanese way of life where the Jochusan cared for the four boys whilst their parents worked. The Jochusan were originally daughters of poverty stricken families who were sold to the licensed brothels in Yoshiwara (pleasure quarter), located in north eastern Tokyo. Mary, as other missionaries did at the time, took in a number of girls to be cared for and trained as household staff. The Jochusan not only taught the boys Japanese but also educated them about Japanese culture. In turn the boys taught the Jochusan English; Tindale often acting as their interpreter (Tindale n.d.a:23–25; Walter 1988:18).

Tindale’s instruction in languages expanded to include French and German. In 1907, whilst waiting to attend the Tsukiji Grammar School (the Tokyo School for Foreign Children), Tindale was tutored by Frau Zittelmann from the German Consulate who spoke only in German as well as a Swiss tutor who taught in French and German (Tindale n.d.a:12). After his school day was over Tindale typically changed into his kimono and spent his spare time with the kozo, the local Japanese boys and their families, communicating in the Tokyo dialect. One particular friend was Toshimasa Shimuzu (see Figure 4), the young son of a Buddhist burial temple priest. Tindale and Toshimasa Shimuzu would get up to mischief which included stalking and shouting insults at the released Russian prisoners begging in the streets. When the boys were caught misbehaving, Tindale was punished along with his friends (Walter 1988:17). Together the boys also participated in Japanese cultural events.

The Tindale family had moved to Japan towards the end the Meiji era—a period during which Japanese society was radically transformed and included a process of Westernisation that influenced the education system in particular. Accordingly, from 1913 to 1914 Tindale was selected as one of the boys from the Tokyo European community to make weekly visits to the home of Prince Fumimaro Konoe. The boys played ‘cops and robbers’ and baseball and spoke only in English so the Prince could learn the language. The Prince and Tindale later reunited at a conference in Yosemite, United States of America (USA) in 1936 (Tindale n.d.a:35–37).
Tindale visited the Imperial Museum taking a particular interest in the Lepidoptera (moths and butterflies) collections, which inspired him to begin collecting, studying and classifying specimens in earnest. Tindale gives credit to two people who were decisive in transitioning his boyhood interest to a professional career. The first was Dr William Jacob Holland, a pastor and director of the Carnegie Museum who had an interest in Lepidoptera and who Tindale met when he visited Japan. The second was Reverend Henry Loomis of The Presbyterian Churches of America, who became the first pastor of Yokohama Shiloh Church in 1874 (Tindale 1914, 1915).

Having read his 1898 publication *The Butterfly Book: A Popular Guide to a Knowledge of the Butterflies of North America*, Tindale attended an address by Dr Holland during his visit to Japan (Tindale 1914, 1915). Holland impressed the importance of collecting techniques including collecting moths by night. Reverend Loomis provided the young Tindale with a collection of moths in paper envelopes and encouraged him to make ecological observations and keep records. Tindale’s appreciation for Dr Loomis was acknowledged in his paper ‘Revision of the ghost moths (Lepidoptera Homoneura, family Hepialidae)’ published in the *Records of The South Australian Museum* (Loomis 1958:165; Tindale 1932, 1933; Tindale n.d.a:49). Tindale maintained his passion for Lepidoptera throughout his life and became a world authority on ghost moths (Family Hepialidae).

**Ambitions Realised: Tindale’s Career at the South Australian Museum**

The Tindale family returned to Australia from Japan, arriving in Adelaide on 21 February 1917. Tindale hoped to transform his boyhood interest in entomology into a profession by securing a position at the South Australian Museum (formerly known as the Adelaide Museum). To that end Tindale and his father met the Museum’s Director, Edgar Ravenswood Waite, and entomologist Arthur Mills Lea on 7 March (Tindale 1917a:7 March). Unfortunately there was no position available at that time but Lea, who specialised in Coleoptera and desired someone to curate the Lepidoptera collection, developed an association with
Tindale. Tindale recorded in his diary that he ‘made up exchanges’ (Tindale 1917a:25 April), collected specimens and that he engaged in many entomological conversations. Tindale’s dream was realised on 15 November 1918, when he secured the position of a Museum Assistant (Entomology) at the South Australian Museum (see Figure 5).

![Figure 5](image_url) Tindale’s employment record, 1917–1923. State Records of South Australia: GRG 19/68/1/3.

Whilst waiting for his ambition to be realised, Tindale joined the Public Library as a library cadet on 1 May 1917. There he was able to consolidate what he had learnt during the many evenings spent with his father. James Tindale not only shared his passion for books with his son, but introduced him to the filing system he had developed for his new office at the Salvation Army Headquarters in Pirie Street. Tindale’s knowledge of the system was cemented by typing out labels and classifying and filing his father’s papers (Tindale n.d.b:29).

James was an important influence on the young Tindale, encouraging him in his studies and discussing ‘interesting’ topics that included evolution, a curious topic for a Salvationist. Tindale first developed an interest in evolution by reading books from his father’s library until he was able to purchase his own. The latter discussions and reading may have been the catalyst that saw Tindale enrol in ‘Heredity and Evolution’, his first course for
his Bachelor of Science at the University of Adelaide. Later, Tindale would also receive credits for passes in German and Japanese at university, a requirement for his degree (Tindale n.d.b:55, 60). The father and son also shared an interest in taking photographs and developing the glass negatives and slides and making copy prints. The younger Tindale’s main subject matter of interest was entomology whereas James often gave lectures on Japan with the eldest son operating the lantern. On the evening of 25 June 1917, whilst cleaning their acetylene gas tank used in the limelight process to project magic lantern slides, it exploded in Tindale’s face, causing him to lose sight in his right eye as well as loosening his teeth and breaking one incisor to the gum (Tindale 1917b:25 June).

In 1921, the opportunity arose to combine Tindale’s interests in entomology and anthropology, when he successfully requested a year’s leave of absence to assist the Church Missionary Society of Australia and Tasmania as an honorary member on an expedition to Groote Eylandt, in the Gulf of Carpentaria. He planned to study and collect natural history specimens on the South Australia Museum’s behalf, and Lea supported the application, stressing that no zoologist or botanist had collected from the island and its adjacent localities since the time of Flinders. Further, he stated, ‘the ethnological objects should also be of exceptional interest as there is not one from the Island in any museum’ (Public Library, Museum and Art Gallery of South Australia 1921, GRG 19/55/1921/232). Having convinced the Museum Board of the importance of the expedition, Tindale was given £50 in advance for purchasing specimens from Aboriginal people.

Tindale had a great capacity to build upon and adapt the various instructions and lessons he experienced, and many of these would later play a crucial role in his thinking and methodology as a Wing Commander in WWII. Of particular importance in this respect was the instruction Tindale received from Sir Walter Baldwin Spencer and the methods employed in the Board for Anthropological Research expeditions. Anthropology was not taught in Adelaide at the time so as preparation for the expedition Tindale was advised to visit Spencer at the University of Melbourne for instruction on how to collect anthropological data. Spencer gave Tindale his personal copy of Notes and Queries on Anthropology by Garson and Read.
and impressed on him the virtues of accurate recording using a standardised system of spelling (Tindale n.d.b:82).

Spencer also advised him:

Never to go to bed at night before entering the key data of the day, even if I had to write the following day about corrections which should be made. I learned to write on the even numbered page of my journal, being careful to indicate date and place, leaving the odd-numbered side for entering data on photographs, making sketches, adding later comments and additions.

(Tindale 1983:16 June)

Tindale participated in his first Board for Anthropological Research expedition in 1928—an influential event in his career. Established in 1926, the Board’s main purpose was to secure funding and sponsor research into physical anthropology with the intent of establishing the place of Australia’s Indigenous peoples within the evolutionary and genetic thinking of the day; the genealogical ‘tree of man’ (Board for Anthropological Research 1928).

Each of the Board’s expeditions was assigned an alphabetical prefix and individual subjects were assigned a sequential number. This unique alpha-numerical identifier was applied throughout the expedition, each time the individual participated in an activity. After each individual was assigned an alpha-numerical identifier, a data card would be completed recording sociological data followed by full face and profile photography. Individuals were then measured for anthropometric data. Tindale later employed a similar type of data card system to record maker’s plates collected from crashed or damaged aircraft. Figure 6 shows an example of a data card used on the 1938 to 1939 Harvard and Adelaide Universities Board for Anthropological Expedition and Figure 7 is an example of a Japanese Maker’s Plate Card developed and used by Tindale.

Visit to the United States of America and Germany, 1936

Tindale’s 1936 visit to the USA and Germany demonstrates his continued link with Japan and his command of both German and Japanese. An exploration of his activities during this time also provides an opportunity to impart Tindale’s political observations in pre-war Germany.

On 11 April 1935, Tindale applied to the Carnegie Corporation in the USA for a travelling research fellowship that would enable him to widen his scope of experience and research methodology in his study of the ‘fast-vanishing life of our Stone-age aborigines’ (Tindale 1935:11 April). He also advocated that in ‘Eastern Asia there are people who have been linked (rightly or wrongly) to Australian Aboriginal people’ (Tindale 1935:11 April). In this latter statement he refers to the ‘Pre-Dravidians of India and Ceylon, the Sakai of the Malay Peninsula jungles and the Ainu of Hokkaido’ (the last in this list a continued interest from his boyhood in Japan). He thus wanted to assess these people in their environments with a view to establishing whether or not there existed a relationship between them and Australia’s Aboriginal peoples. Tindale’s application was a success and he departed Adelaide for the USA on 4 June 1936. Whilst in the USA, he accepted an invitation from Jack Shepherd, Secretary of the Institute of Pacific Relations, to be one of the Australian Delegates to their sixth conference at Yosemite. There he met up with Prince Konoe, who the following year became Prime Minister of Japan. The pair had lunch and reminisced about their boyhood days together. The *Melbourne Herald* on 19 October 1936 reported that a Mr Tindale of Adelaide could understand Japanese without a translator (see clipping in Tindale 1979–1980:5).

From the USA, Tindale travelled to Europe visiting museums in the United Kingdom (UK), Netherlands, Belgium and Germany, where he could converse in the native tongue; a fact he recorded in both his journal and in a letter to his wife Dorothy (Tindale 1936a; Tindale 1936b:17 November). Tindale arrived in Munich on 9 November 1936, in time for the commemoration parade for the 16 soldiers who lost their lives in the failed 1923 Beer Hall Putsch. At the Feldherrnhalle in 1923, the Führer and Reich Chancellor Adolf Hitler, who orchestrated the coup, was
arrested and sentenced to one year in gaol for treason. In a newspaper (name not recorded) article titled ‘Hitler makes a March in Munich’ dated 10 November 1936 pasted into Tindale’s journal (see Tindale 1936a:536), his deputy Herr Rudolph Walter Richard Hess, General Herman Wilhelm Göring, General Werner von Blomberg, the Defence Minister, and Herr Heinrich Himmler, head of German police, joined Chancellor Hitler in the parade. Tindale captures the procession by photographs, including one of Hitler (see Figures 8–9).

Figure 8 Tindale’s photograph of ‘Hitler and his associates marching on foot’. South Australian Museum Archives: AA 338 Norman Barnett Tindale Collection, 1936 ENGLAND–GERMANY album (Tindale 1936c).

In a letter to his wife, and in his journal, Tindale noted the solemn silence as Hitler called out the names of the dead and a flame was lit for each soldier that was killed. He also records, as the banner bearers marched, that people called out ‘Heil Hitler’ and raised their hand in the Nazi salute whilst martial music played in the background. Tindale would see Hitler, ‘an impressive figure’, three times whilst in Germany (Tindale 1936a:535-541; Tindale 1936b). Tindale’s observations of the political climate of the day also records that:
the soldiers are everywhere and how smart they looked in their dress and parade. ‘They are bitter against the Jews & the Soviet. Big placards & notice boards bear signs which read “The Jews are our misfortune”. Etc. I found the ones I talked to most pleasant companions – in fact I have had a royal time.

(Tindale 1936b:17 November)

Figure 9 Tindale’s photograph of ‘Procession of the banners’. South Australian Museum Archives: AA 338 Norman Barnett Tindale Collection, 1936 ENGLAND–GERMANY album (Tindale 1936c).

Whilst visiting the museums Tindale took particular note of the way the guides and displays educated visitors on the decline in birthrate of Nordic people in Germany, the omission of non-Indigenous peoples, such as the Jews, and the emphasis on sterilisation. His journals also contain detailed descriptions, sketches and photographs of museum collections, in particular the Australian objects in their custody, copies of which were repatriated to Germany after the war so they could reconstruct museum displays that were bombed (Tindale 1936a:525–704).
In 1936 the Carnegie Corporation also funded a £800 grant to the South Australian Museum to establish a children’s museum consisting of a lecture room, a club room, and a room for exhibits, opening its doors in 1937 (Anon. 1938; South Australian Museum 1937). These facilities took on a new role when Japan entered the war and the Education Department discontinued organised visits to the Museum, to prevent the children being away from school. The children’s lecture room was used to show the soldiers films taken on the Board for Anthropological Research expedition. The Chairman of the Board thought the cinefilm illustrating how Aboriginal people obtained food in the desert would be of particular interest to the airmen (South Australian Museum 1942:14 May). Tindale was selected...
to provide lectures, show the cinefilm and give elementary instruction on conversational Japanese (Tindale 1941:9 October). He was well-placed to give the latter elementary instruction as he had been a tutor in conversational Japanese at the University of Adelaide (Tindale 1936d:23 November).

**Military Career**

On 19 February 1942, Commander Mitsuo Fuchida, air-strike leader of the Japanese carrier force that attacked Pearl Harbor, led an attack on Darwin. During the raid, aviator Hajime Toyoshima’s Zero (see Figures 11–12) was damaged by anti-aircraft fire so he decided to land on Melville Island. Fuchida broke radio silence to report the Zero’s forced landing along with the success of the raid to Admiral Nagumo. A Japanese task force was sent to recover the pilot and plane but found neither (Funch 2003:113).

Toyoshima was captured and disarmed by Matthias Ulungura, a Tiwi Islander, and became the first Japanese Prisoner of War interrogated on Australian soil. The Zero was sent to Melbourne for detailed examination by the Directorate of Intelligence, RAAF Headquarters in April 1942. Pilot Officer Tindale was assigned the task under the supervision of Squadron Leader Robert H. Wreford. The airplane proved to be a Type 0 carrier Based Fighter Model 21, serial No. 5439 manufactured by Mitsubishi. This airplane type has become known to the Allies as the ‘ZEKE’ fighter (Department of Defence 1945).

Until the bombing of Darwin, little was known about the design, production, identification and performance of Japanese aircraft. The USA, UK and Australia had been warned by Brigadier General Claire Chennault in 1937, that an evaluation of the new fighters was required and that disaster would result if British and American fighters attempted to dogfight with this new Japanese aircraft. The warnings were dismissed and the potential of the Zero was greatly underestimated (Abraham 1996:1; Department of Defence 1945). However, this lack of knowledge would soon be rectified. From Tindale’s examination of the damaged Zero, the intelligence potential was recognised and provision was made for the detailed study and analysis of the Japanese Air Industry. The importance of collating and disseminating this information from crashed or captured enemy
aircraft maker’s plates resulted in the establishment of the Air Industry Section (AIRIND), a unit of the Allied Air Intelligence Organisation at the headquarters of Allied Forces led by Tindale. Indeed, as noted previously, Tindale developed the methodology and procedures for the removal of the maker’s plates from the enemy aircraft and their analysis. The manual instructed the Allied Technical Air Intelligence personnel to score the plane type and fuselage number on the back of each plate, and have them ‘placed them in a cloth bag closed with a draw string and labelled on the outside with full details of plane type, location and date of crash (if known)’ (Abraham 1996:20). This would not be dissimilar to collecting samples in the field for the South Australian Museum and demonstrates Tindale’s capacity to take his learnings from one sphere of life into another.

![Hajime Toyoshima's photograph from his Prisoner of War file. Australian War Memorial AWM 068530 and AWM P00022.002.](image-url)
Once the plate was received by AIRIND, it was

...cleaned, translated and the translation typed onto the right hand side of a proforma card. Full details of the source were inserted across the top of the card and the plate itself mounted on the left hand side...
(Abraham 1996: 20)

As noted earlier in this paper, these cards are reminiscent of the Board for Anthropological Research data cards as well as Spencer’s instruction to record on the right hand side, leaving the left hand side for photographs, a procedure which Tindale adopted for his journals. AIRIND produced more than 35,000 cards. The data from the card was used to map production rates of aircraft, engine or component parts, critical shortages, plant locations and even quantities of reserves in parts supply. Tindale also asked Abraham to draw a flow chart of each plane type for which they had sufficient data. It resembled a genealogical tree when transposed onto a map of Japan and represented the
spatial flow of components almost from raw material to the final aircraft assembly line (see Figure 13). The analysed data was then disseminated in the form of classified memorandum and monthly reports on production rates, bottlenecks, aircraft types and nomenclature and factory locations. By 1943, the scope had widened to include Prisoner of War interrogations; fuselage, propeller and engine logs; and ferrying schedules (Abraham 1996:20, 23–24; Department of Defence 1945).

Tindale broke the major coding systems which the Japanese manufacturers applied to airframes and engine types to hide their true serial numbers. According to reports, the makers of Japanese aircraft were coding the serial numbers to hide the true sequence of manufacture long before Pearl Harbour. From mid-1944, the intelligence collected enabled the location of key production sites on the Japanese Home Islands and facilitated the targeting of strategic bombing attacks on aircraft factories, using the B29s Superfortresses based initially in China and later in the Marianas.

**Figure 13** One of the charts showing the flow of Mitsubishi airplane components. Australian War Memorial: 54 15/3/5.
Another major contribution of AIRIND, in conjunction with the Technical Air Intelligence Centre, was the study, identification and assignment of code names for every type of Japanese aircraft. Previously there had not been a consistent identifier for the enemy aircraft. These code names, such as ZEKE for Type O (see Figure 14), become the official allied names (Department of Defence 1945).

Figure 14 One of the cards developed by AIRIND displaying silhouettes of Japanese aircraft for use by the Allies. South Australian Museum Archives: AA 338 Norman Barnett Tindale Collection.

An opportunity for Tindale to engage in fieldwork in New Guinea and the Solomon Islands (see Figure 15) came in August 1942 after the USA marines landed on Guadalcanal (part of the Solomon Islands) and captured the airfield (Tindale 1945). After months of fighting there was a rich harvest of makers’ plates, log books and delivery schedules from crashed enemy aircraft and those left abandoned on captured airfields. The biggest threat to the retrieval of plates was the allied servicemen taking them as souvenirs. ‘Be second on the spot and you’ve lost the lot!’ (Abraham 1996:27). Without definitive provenance, the plates had no value.
During the course of his military work, Tindale found time to collect specimens for the South Australian Museum. Correspondence from the Director Herbert Hale made requests for Tindale to collect certain specimens. Tindale’s journals also record language and notes on ‘genetic class’ in the same way as he ‘classified’ Aboriginal people in his Australian research (see Figure 16).

In 1944, Colonel (later Brigadier General) Burgess and Dr N. Meiklejohn of the Foreign Economic Administration, Washington DC, inspected AIRIND and concluded that in the view of the overall strategic importance, it would be transferred to the War Department General Staff in Washington DC and given responsibility for the analysis of all sources on the Japanese Air Industry (see Figure 17). This was agreed to by concurrence of the Theatre Commands and Air Ministry and AIRIND became a combined US and British section providing intelligence for the use of Allied Forces. AIRIND was established as one of the five intelligence research units within the military branch of the MIS.
Figure 16 Tindale notes in his album the ‘genetic class’ of Major Wickham and a Sergeant. South Australian Museum Archives: AA 338 Norman Barnett Tindale Collection, 1944 SOLOMON IS album (Tindale 1944).

At the newly completed Pentagon Tindale met up unexpectedly with Sir Mark Oliphant, who he had originally met during his days as a cadet librarian, in the ‘top secret’ area labelled ‘Manhattan Project’. Tindale recorded that Oliphant told me not to notice him or mention his name saying ‘I will tell you later all about my presence’ (Tindale n.d.b:82). He was not aware what the project entailed. Tindale described that when making final decisions on which city would have the atomic bomb dropped on it, the allies selected Hiroshima as it had not been damaged before, enabling them to assess the impact.

The intelligence provided by AIRIND enabled a strategic bombing strategy for the Home Islands. In a 1945 report, a direct target directive was made. Aircraft engine factories were to be bombed first and followed by two items of equal priority; incendiary attacks on cities and the bombing of aircraft assembly plants (Abraham 1996:37). As a result of the targeted bombing, aircraft production became dispersed with a portion of aircraft component manufacture taking place in small backyard industries and workshops. With the dispersal, AIRIND estimates for air production rates became less accurate.

After Victory in Japan Day on 15 August 1945, AIRIND concluded operations and prepared for demobilisation. However, Tindale and a small group were selected to form an Air Industry Unit of the Strategic Bombing Survey—Pacific Theatre of Operations, to survey the damage done to the Japanese Air Industry and to evaluate the intelligence provided by AIRIND. This was to be followed by a period of analysis and documentation back to Washington.

The unit operated out of the headquarters in Tokyo, and sub-headquarters in Nagoya and Osaka. Tindale secured principal surviving Japanese records, surveyed factories and interviewed top Army and Navy officers, government officials, industrialists and political leaders. Much of this is described in Tindale’s ‘Journal of Events in Japan Oct–Dec 1945’. Critical to intelligence gathering, a ploy of Tindale’s was to pretend not to understand Japanese when interviewing with an interpreter.

Tindale’s evaluation confirmed that following the attacks on the major Nikajima and Mitsubishi plants in Tokyo and Nagoya late in 1944 that the Japanese government decreed immediate dispersal to sites underground and remote from
major centres. The Japanese failed to complete the relocation of activities to re-establish production. In Nagoya, the Japanese had dispersed their aircraft production facilities to a range of underground sites including existing stone and sand quarries, tunnels both existing and newly excavated for the purpose and even basements of department stores (Abraham 1996:50).

Whilst in Japan, Tindale returned to a six foot long stone door step, all that remained of his childhood home, on Tuesday 6 November 1945. He discovered that his ‘house had been destroyed on 25th May during the fire-bombing of Tokyo which burned all around the Hachiman Temple and the Jōfukuji Buddhist Temple [while] leaving them untouched’ (Tindale 1945:21).

In Shimoshibuya (now known as Tokiwamatsu) Tindale met with Mrs Ichikawa, the sister of his boyhood friend, Toshimasa Shimuzu, and his brother Yasuzo. At Mrs Ichikawa’s small residence, Tindale drank tea and was served sweet potato. Her grandchildren were happy to meet him as they had only been talking about him a few weeks prior to his visit. Tindale discovered that Toshi had fallen victim to tuberculosis (hai-byo). After refreshments they visited the temple and noticed that the bell that he had rung many times at sunset with his friend Toshi was standing on the porch waiting to be rehung. They spent many hours posing for photographs and reminiscing about the ‘old days’ (Tindale n.d.b: 69; Tindale 1945:21–22).

On 10 December 1945, Tindale boarded USS Ancon and headed to the USA AF Annex at Gravelly Point to write his final military report. On his voyage to the USA he discovered that his childhood friend Prince Konoe, whom he had played ‘cops and robbers’ with as a child, had taken his own life when he came under suspicion of war crimes. On 14 June 1946, Tindale embarked in San Francisco to head for home to return to his beloved family and resume working as the South Australian Museum’s ethnologist. Back in Adelaide, and after four years and seven months, Wing Commander Tindale was discharged from active service.

Tindale received commendations from the Secretary of War Robert Patterson (Patterson 1945) and RAAF Commodore Joseph Eric Hewitt (Hewitt 1946). The US War Department wanted to award Tindale with the Legion of Merit but this was denied by the Australian Government (Abraham 1996:42–43).
Tindale was awarded the Pacific Star, Defence Medal, War medal 1939–1945 and the Australian Service Medal 1939–1945 (Department of Air 1949). Figure 18 shows Tindale’s Certificate of Service.


Conclusions

There were many contributing factors to Tindale’s success in all aspects of his personal and professional life. Beginning with his childhood, Tindale’s parents supported and encouraged his interests. These interests were pursued with such indefatigable enthusiasm that they later transitioned to his professional life. Tindale’s capacity to adapt, innovate and build upon his diverse skills and interests resulted in his unique and highly valuable contribution to intelligence operations in the Pacific Theatre of WWII.
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