The United States Medical Military Service in Southeast Queensland in World War II

Associate Professor Chris Strakosch
The United States Medical Military Service in Southeast Queensland in World War II

Associate Professor Chris Strakosch
Dedicated to the members of the armed forces of all the combatants in the Pacific Campaign in World War II. They strove to advance the cause of their country, often in bitterly adverse circumstances.

And to the doctors and nurses of the US Medical Services who came across the sea to support their forces in this titanic struggle.
Contents

VII  Foreword
VIII Abstract

1  Background to the War in the Pacific
4  The Japanese Strike South
6  US Military Hospitals Established in Queensland
   6  155th Station Hospital, Tamborine
   7  42nd General Hospital
11  105th General Hospital
13  109th Fleet Hospital
14  The Second Front: The War Against Malaria
17  Other Non-Malarial Diseases
   17  Scrub Typhus
   17  Dengue Fever
   17  Dysentery
18  Conclusions
19  Bibliography
Foreword

The year 2012 marks the 70th Anniversary of the arrival of the United States military forces in Australia to confront the Empire of Japan. I am a physician at what is now Greenslopes Private Hospital but which during World War II was 112 Australian General Hospital (Greenslopes). I have been very interested in the history of this hospital and had previously presented a lecture on it to the Royal United Services Institute (RUSI). I was thus delighted to be further invited to contribute to a seminar “General Douglas MacArthur-Agent of Change” organised by the MacArthur Museum Brisbane to mark the 70th anniversary of the arrival of the general in Brisbane. My part was a thirty minute presentation on the US military hospitals in South East Queensland during World War II.

As I researched the area further, I was fascinated to find the enormous extent of the US medical presence. By 1944, there were some 9000 US military hospital beds in the Brisbane area at a time when the population of Brisbane was only 350000. The focus of the research was on the large General Hospitals meaning that the several other smaller hospitals such as 153rd and 166th Station Hospitals, Southport and 172nd Station Hospital, Indooroopilly, as well as many small camp hospitals have not been included. I felt, however, that it would be unfortunate if the research on the hospitals I did concentrate on were to be lost after the seminar, and hoped that this booklet would serve as a reminder of the enormous role Brisbane played as the major base for US armed forces engaged in the Southwest Pacific Campaign during World War II.

I would like to thank Brigadier (Rtd) Peter Rule AM and Brigadier (Rtd) WJA (Bill) Mellor DSC, AM, Trustees of the MacArthur Museum in Brisbane, for the opportunity to present this research. The splendid website maintained by Peter Dunn www.ozatwar.com was especially helpful as a starting point for many of the searches and Jim Plunkett very kindly gave his time to show me over the remains of the US 155th Station Hospital on his property at Tamborine.

I would like to express my gratitude also to the Chief Executive Officer of Greenslopes Private Hospital, Mark Page for very generously providing the financial support for the publication of this book, Holly Freemantle, Design Officer for the design and layout and the Director of Marketing, Frances McChlery for her ongoing support.

Associate Professor Christopher R Strakosch, MD, FRACP
Head of the Discipline of Medicine, Visiting Endocrinologist
University of Queensland Department of Medicine,
Greenslopes Private Hospital
Abstract

The first military medical unit of the US arrived in Australia on December 22, 1942, on board the Pensacola convoy which had sailed before the attack on Pearl Harbour but which had then been diverted from the Philippines. Colonel Carroll later transferred from Manila and took command of US medical services from a base in Melbourne. The US Army divided Australia into sections for medical administration, Southern Queensland being designated Section 3. By Sept 1943, Section 3 controlled two General Hospitals: 42nd GH Holland Park with 3000 beds (moved from Stuartholme October 1943) staffed by University of Maryland Medical School, and 105 GH at Gatton with 1200 beds staffed by Harvard Medical School. There were also two Evacuation Hospitals, (155 Station Hospital at Camp Cable, Tamborine and 153 Station Hospital, The Southport School, Gold Coast), two Surgical Hospitals, eight Portable Surgical Hospitals, one Medical Supply Depot and the 3rd Medical Laboratory Brisbane. The US Navy also operated 109 Fleet Hospital (initially known as Mobile 9) at Camp Hill with another 2600 beds. The naval hospital ratio of battle casualties to medical patients at approximately 1:2 was much higher than the army hospitals in which the majority of patients were admitted with malaria, other tropical diseases or for treatment of routine problems such as appendicitis or venereal disease.

Malaria was the second front in the South West Pacific area, allied with scrub typhus, dengue fever and dysentery. During the course of the war, at one time or another, about 65% of US and Australian troops were rendered combat ineffective due to malaria and much research was performed by the US and Australian Armies into, ultimately successful, ways of combating and treating this devastating problem. Another 25% of troops were evacuated with scrub typhus, dengue, and dysentery- a total of 90%, though most returned to the field. Battle casualties were about 10% killed in action and 20% wounded.
Background to the War in the Pacific

In 1868 the newly installed Japanese Emperor, Prince Mutsuhito, saw that the policy that had served to keep Japan isolated from the rest of the world was no longer useful in the face of aggressive European expansion. He recognised that Japan had either to be “guests at the table or part of the feast”. In an historic move known as the Meiji Restoration, he seized control of the country from the hereditary military dictator, the Shogun, and began a program of rapid modernisation. The teenage Emperor had taken the name Meiji (pronounced May-gee), meaning “Bright Rule”, for his dynasty but the military who had controlled the country through the dictatorship of the Shogunate remained resentful about the loss of power. Japan sent emissaries to the rest of the world to determine which system would suit as the best model for Japanese society. Germany was the up-and-coming power in Europe, with an excellent education system and supremacy in many technical areas. It had a parliamentary democratic system, though with a major role for the Emperor, and a strong army influence, and was chosen as the role model for society in general and the army in particular. The new Japanese navy, however, elected to follow the model of the Royal Navy, easily the best and strongest in the world at the time.

The Japanese modernisation program was so successful that, in 1904, Japan defeated Russia, a major European power, in a struggle for control of Manchuria. A surprise naval attack followed by a major land victory at Mukden saw the Russians sue for peace, this being the first time an Asian country had defeated a Western Power since Tamerlane in the 14th century. Britain had entered into an alliance with the Japanese and was able to withdraw ships from the Pacific, where they had been containing Russia, to Home waters, where the German High Seas fleet was challenging the Royal Navy for supremacy. When war came, the Anglophile Japanese Foreign Minister, Baron Kato, succeeded in persuading the Japanese cabinet to enter World War I on the side of the Allies. Japanese warships escorted the Australian Imperial Force to the Middle East, and Japanese industrialisation was greatly hastened by large munitions contracts with her shipyards launching 263 ships for the British.
By honouring her alliance with the British, Japan had chosen the winning side in the war, but there were to be major adverse consequences for the Japanese. Japan was keen to have a racial equality clause inserted in the final Covenant of the League of Nations, but the Australian Prime Minister, William Hughes, was able to use the tremendous prestige won by Australian troops in the final stage of the war to affect a veto and protect the White Australia Policy. In 1922, the Washington Naval Conference was held to decide the relative naval strengths of the victorious powers. After much negotiation the status quo was to be maintained with naval tonnage being limited to a ratio of the US to Britain to Japan of 5:5:3. Even moderate Japanese were dismayed at being relegated to a permanently inferior status. The Japanese, however, by virtue of a League of Nations Mandate, were to keep the Northern Marianas, Palau, Caroline and the Marshall Islands, which they had seized from Germany, thus putting Japanese islands directly between the US mainland and its Philippine dependencies. In response, the US further developed “War Plan Orange” in case of future war with Japan.

Japan was very hard hit by the depression of the 1930s, with loss of the lucrative silk market and the successful war contracts which had sustained a growing industrial base. The Depression also served to lock Japan out of the market for its manufactured goods, as Western nations erected tariff barriers to protect their own industries. There was much civil disturbance with strikes and lockouts and the increasing appeal of socialism, especially attractive to the industrial workers following the success of the Russian revolution.

The military and conservative sectors of Japan were greatly concerned with the disruption of what had been a very stable and ordered civil society. They felt Japan had lost its way and was being overly influenced by what were perceived as largely negative factors from Western cultures, particularly that of the United States. The 1920s and 30s saw the rise of Fascism in Europe in response to an increasingly vigorous communist movement, and the Japanese military especially saw great similarities between ideals of the old Shogunate and those of Fascism. Both valued discipline and the importance of the group over the individual, they preferred poetry to prose, emotion to reason, and upheld the ideal of the heroic warrior sacrificing himself for the cause. If only Japan could return to the days of the Shogunate when she was pure and untainted by outside influences, the thinking went, then she would find her way again.
Japan, however, was still a democracy of sorts and continued to elect slightly left-leaning politicians. The military knew how to counter this: going to war would provide an external enemy to unite the population of Japan, and opposition could be crushed by appealing to patriotism and the necessity of discipline in wartime. Campaigns were opened in Manchuria in 1931 and then China itself in 1937. When the government was half-hearted in its support, an army regiment being sent to China launched a revolt and attacked the parliament in Tokyo, killing the brother of the Prime Minister, before being crushed by loyal army units. In fact, prior to World War II, six prime ministers of Japan were assassinated for taking actions not approved of by the army.
The Japanese Strike South

The adventures of the Japanese army attracted international condemnation, which was a factor in pushing the Japanese into the arms of the Fascist powers of Europe. Japan signed the anti-Comintern Pact with Germany in 1936, and then the Tri-Partite Pact with Germany and Italy in 1940.

In an effort to close the rail link from French Indochina which was being used to supply the Chinese, Japan invaded Northern Indochina in September 1940, followed by the South in 1941. This put Japanese forces to the west of the US protectorate of the Philippines, virtually completing an encirclement since Japan already occupied Formosa (now Taiwan) to the north and the island Mandates to the northeast. The occupation of French Indochina also threatened the British and Dutch possessions of Malaya and the East Indies. In response, the US froze Japanese assets in the United States, and on 1st August 1941 embargoed oil and strategic materials to Japan. This left the Japanese military with only a two year reserve of fuel and, since the US was essentially the world bank after WW1 and all international transactions were in US dollars, unable to purchase any further war materials outside the small Yen zone. Prime Minister Prince Konoe resigned and Emperor Hirohito chose General Tojo as his prime minister. The Japanese dependence on imports of oil meant that they would either have to back down in the face of US demands, which now included a withdrawal of forces from China, or move to secure future oil supplies. The closest oil producing region was the Dutch East Indies, but a Japanese move south to take control of the oil supply would leave a flank threatened by the US fleet in Hawaii. To pre-empt this, the Japanese decided on a strike against the main US Naval base at Pearl Harbour, the hope being that the US would then sue for peace as had the Russians in 1905 or be drawn to a definitive naval battle close to the Japanese home islands.

The United States had predicted a war with Japan since at least 1898, when Japanese cruisers demonstrated in Hawaiian waters to protest the annexation of Hawaii by the US. War Plan Orange, which saw the US and Japan as opponents fighting without allies, went through many phases before the final version with aircraft carriers, battleships and large fast fleet submarines organised in battle groups. Orange was a “Central Pacific Solution”, where the battle groups would seize one Japanese island and use the new base to support an attack on the next, and thus close in on the Japanese home islands. Orange recognised that the US would not be able to hold the Philippines, and the logistics statisticians advised that the US would not be in a position to recover the islands for two to three years. The US forces were supposed to hold out in the Bataan Peninsula protecting Manila Bay and the island fort of Corregedor until reinforcements arrived, but without air support or any significant sea borne assistance this was not a realistic plan. As a result, Orange essentially wrote off the Philippines should hostilities break out. The statisticians provided very accurate predictions: when the war in Europe began, American economic statisticians began planning for a war allied with Britain against the Axis Powers. In November 1941 (before the US was even in the war), they declared that the US would not be strong enough to invade Europe until May 1944. In fact D-Day was June 1944, only one month later.
The President of the United States, Franklin Roosevelt, was very sympathetic to Britain in its war with Nazi Germany, and also to China, which was involved in an undeclared war against Japan. His Secretary of State, Henry Stimson, was even more inclined. The population of the US, however, was reluctant to be involved in an overseas war, though they were more ready to support a war with Japan than with Germany. Roosevelt moved as fast as he dared to support the British. Peacetime conscription was introduced for the first time in September 1940, and the National Guard was Federalized. The landmark Lend-Lease program was introduced in March 1941, and the US conducted ever more aggressive measures to protect British convoys, to the point where the destroyer USS *Reuben James* was sunk in October 1941 by a German U-boat.

The Japanese strike on the US naval base at Pearl Harbour brought the United States into the war, much to the relief of the US Secretary of State, Henry Stimson. A convoy of nine transports carrying 4600 soldiers and 70 crated aircraft, and escorted by the heavy cruiser USS *Pensacola*, had been bound for Manila in the Philippines but with the outbreak of war was diverted to Brisbane, arriving on 22 December 1941, just two weeks after the Pearl Harbour attack. Despite vigorous protests by the US army, the navy had no intention of sacrificing its ships to support the doomed defence of the Philippines. The first US military medical presence here was a small detachment with the infantry on the ships.

Colonel Percy J Carroll (later Major General) transferred from Manila to Melbourne in February 1942 to establish the medical section of the US Army Services of Supply in Australia. The USASOS had been instituted in early 1942 to concentrate army procurement-and-supply under one command, and replace the multitude of competing and often overlapping agencies that had been in place previously. USASOS divided Australia into sections for administrative purposes, with Southern Queensland being designated Base Section 3.
US Military Hospitals Established in Queensland

The first US hospital to be established in Queensland was the 153rd Station Hospital (SH) at the Gatton Agricultural College, a site selected to be safely away from any hostile Japanese action that might involve Brisbane. 153 SH only remained at Gatton for a few months before being transferred to The Southport School on the Gold Coast, and then moving up to New Guinea. A Station Hospital, sometimes apparently known as an Evacuation Hospital was fourth in the chain of US army medical evacuation stations. (Some tables of evacuation show Evacuation Hospitals as being between the Field Hospital and the Station Hospital but some don't show an Evacuation Hospital at all or seem to refer to the Station Hospitals as Evacuation Hospitals). Wounded soldiers were first taken to a Battalion Aid Station situated just out of range of small arms fire. There, any emergency aid such as tubes for sucking chest wounds was instituted and the casualty was then moved to a collecting point to be transported, usually by jeep, to a Casualty Clearing Station located near the Battalion Headquarters. Triage (from the French word for sorting) was carried out and any further emergency surgery might be performed in a nearby Field Hospital. If the problem were minor and requiring only a few days or weeks, the patient might stay in a Field Hospital ward, otherwise they would be transported to a Station Hospital, situated in buildings if possible, perhaps 30 to 50 miles back. Here, female nursing staff would be first encountered. The patient might stay there for up to six months or, if requiring intensive or very specialised treatment, be further transported by road, rail or air to a General Hospital. These hospitals were situated about 50 to 100 miles behind the front lines in a suitable building such as a pre-existing hospital, school or hotel.

155th Station Hospital, Tamborine

The 155th Station Hospital had been activated on 15 May 1941, but this 500-bed hospital did not embark for Australia until 19 May 1942. The USAT West Point was diverted to New Zealand when the Japanese attacked Sydney Harbour with midget submarines, and did not arrive in Melbourne until June. The hospital then moved to Brisbane where it was housed at the Doomben racecourse until October when it moved to Camp Cable at Tamborine 55 kilometres Southwest of Brisbane. Camp Cable was a large camp extending some 12 kilometres between Tamborine and Logan Village, and housed the 20,000 strong 32nd Division: the mobilised Wisconsin National Guard. The camp was named after a US soldier, Sgt Gerald O. Cable, killed in a torpedo attack on the Liberty Ship transporting the division from Adelaide to Brisbane.

The hospital dealt with the sick and injured of the resident 32nd Division, but with the fighting in Guadalcanal from August 1942 the majority of patients were Marine casualties. In December 1942 the hospital census was 227 Army, 410 Marine and 22 Navy patients. There were few battle casualties, with most of the Marine patients being admitted suffering from malaria, but also from malnutrition and vitamin deficiencies, reflecting the difficulties in supplying the troops in the
tough jungle terrain. The hospital needed to be enlarged by adding tented wards to provide for the influx. Care was given by 30 Medical Officers, 50 Nursing Officers and 219 enlisted men who carried out most of the routine nursing tasks.

On 28 January 1944, the hospital moved from Camp Cable to a new site at Ekibin and was housed in semi-permanent buildings just across the valley from 112 Brisbane General Military Hospital, previously 112 Australian General Hospital and from 1995 Greenslopes Private Hospital. 155 Station Hospital was to remain there for only a few months before making a further move to Holland Park to occupy the recently vacated spacious facilities of 42 General Hospital. The 1250 beds at the Ekibin site were then occupied by 102 Australian General Hospital, which moved up from Tamworth in Northern NSW. 102 AGH Ekibin specialised in treating psychoneurotic problems and during the 12 months of 1945 admitted 1648 psychiatric patients, though in only about 14% of cases was the illness thought to be due wholly to war service.

42nd General Hospital

In 1940, though war had broken out in Europe, the United States was still at peace. The Democratic Administration of President F. D. Roosevelt was sympathetic to the cause of the British and the soon-defeated French, but the population of the US was reluctant to be drawn into another war across the Atlantic. Nevertheless, with the world in such an unstable state, the President undertook special and unprecedented measures. A lottery-based conscription was introduced for the first time in peace, and the National Guard, previously a state responsibility, was Federalised. The major teaching hospitals were invited to set up reserve...
hospitals staffed by members of the medical and nursing staff of those hospitals in case they were needed for overseas deployment should the country be drawn into the war. The medical officers were commissioned as army reservists, and the nurses also given a “relative rank” of lieutenant, for example, but at 50% of the pay of male officers. Nurses, in addition, were not saluted. Dieticians and physiotherapists were enrolled as civilian contractors, though given military rank after 31st March 1943. For sentimental reasons, these reserve hospitals were given the same number as had been allocated to the reserve hospitals deployed by those universities in World War I.

The two university-affiliated General Hospitals which came initially to Queensland were 42nd General Hospital (GH) from the University of Maryland Medical School, and 105th General Hospital staffed by the Harvard Medical School. These hospitals were planned to have around 1000-bed capacity but experience gained in the brief Philippines campaign and from the British in the desert suggested that two 500-bed hospitals would be more useful. Just prior to sailing, word came through of the decision to divide the hospitals, requiring mammoth organisational efforts to make the division and overcome unit resistance, since the hospitals had built up quite an “esprit de corps” during training. In the end, the 142nd GH was split off from the Maryland unit and ended up in Calcutta. The Harvard Medical School provided the 5th GH, which sailed for Britain and was involved in the invasion of Europe, while the 105th was the subdivision which came to Australia.

In April 1942, the members of the 42nd General Hospital entrained for Fort Custer in Michigan. Each hospital unit comprised approximately 45 medical officers, 60 nurses, 275 enlisted men with attached physiotherapists, dieticians and Red Cross staff. The 42nd embarked on the fast liner USS West Point which, relying on her speed for safety, sailed for Australia unescorted, arriving after an uneventful passage in Melbourne on 4th June 1942. By July 6th the unit had moved to Camp Redbank 30 km west of Brisbane, while the new site at the Brisbane Convent School of Stuartholme was readied. The Convent, run by the Religious of the Sacred Heart of Jesus (a French order often referred to using the French initials of rscJ), occupied a very pleasant site on a hillside in the Brisbane suburb of Toowong. The nuns offered to share the accommodation with the US medical staff, but this was politely declined and the school moved to a hotel at Tamborine. Much work was undertaken at a feverish pace to ready the hospital. Initially the wards were established
in large tents on the convent grounds, with the enlisted men also in tents and the officers and nurses quartered in the stately old brick building of the convent itself. The road to the convent was improved, electrical generators installed, along with as a modern elevator still in use in the convent. In just two weeks the hospital was ready to receive patients, with 60 transferring in on 20th July 1942. A major setback occurred when the Liberty ship SS Rufus King was wrecked off Moreton Island, having mistaken the South for the North West passage. The ship was laden with about two thirds of the hospital’s heavy equipment, such as X-ray machines and laboratory supplies, and though some was salvaged, most was lost or damaged beyond repair.

There was limited space at the convent and an auxiliary hospital, known as 42nd General Hospital (Section II), was set up at Camp Columbia at Wacol, about 20 kilometres west of Brisbane, to take non-acute cases and provide a beneficial setting for patients undergoing rehabilitation. The new spacious RSPCA complex is situated on what were the old hospital grounds. A further small unit (Section III), of 30 beds staffed by two medical officers and five enlisted men, was established in the grounds of the nearby Goodna Psychiatric hospital for treatment of US patients with neuropsychiatric disorders.

Meanwhile the Kokoda Campaign was continuing. The initial phase of the campaign saw the Australians driven back almost to Port Moresby. In the second phase, the Australian Militia, now reinforced by units of the 2nd AIF, forced the Japanese back to the Northern coast of Papua New Guinea, where the remnants of the Japanese force were brought to bay at the coastal towns of Buna and Gona. This success in pushing the Japanese back was only partly due to force of arms. Major General S. R. Burston, the Director General of Australian Army Medical Services, had quite correctly predicted that with such a long supply line, the Japanese would be more affected by malaria and starvation than would be the Australians. The Japanese also realised that they could not hold Guadalcanal and advance on Port Moresby at the same time, and started to withdraw troops from New Guinea. At this stage, US troops were not involved. The US 32nd Division then moved up from Camp Cable at Tamborine south of Brisbane, and spent six weeks crossing the Owen Stanley range on a track parallel to the Kokoda Trail. The terrain was very rough and by the time they too arrived at Buna, disease
and exhaustion had taken a severe toll of the troops, though they had not encountered the enemy on the way. At Buna and Gona, the Allies found the Japanese forces were in well-constructed and camouflaged bunkers, but were starving and riddled with malaria, dysentery and scrub typhus. Only one soldier in seven was fit for combat. With their backs to the ocean and no hope of rescue, the desperate Japanese still exacted a very heavy toll on the attacking allied infantry until finally overwhelmed. The troops were urged on to attack by US Lieutenant General Robert L. Eichelberger, who had been told by General MacArthur, “Bob, I want you to take Buna... or not come back alive...” The heavy casualty rate from enemy action, as well as the devastating loss of effective soldiers due to malaria and scrub typhus, meant the US and Australian forces required urgent forward hospital support. To meet this emergency, a small group of medical and support personnel of the 42nd GH was formed into the 3rd Portable Surgical Hospital. By the end of 1942, this forward hospital was treating the US sick and wounded from the final stage of the campaign. With the fall of Buna the unit was withdrawn to Northern Queensland, before being sent north again to provide support for the Hollandia-Aitape operations. With the close of the New Guinea campaign, this decorated unit rejoined the parent hospital at Stuartholme. Seventeen months later when the hospital moved to new facilities at Holland Park, 7920 patients had been admitted.

The newly built hospital at Holland Park was well built and relatively luxurious, with steam heating to all the wards. Though the establishment was 3000 beds, at any given time only about 1000 were occupied. The greatly increased capacity, however, meant that Section II at Camp Columbia and Section III at Goodna Psychiatric Hospital were closed, and patients transferred to the new base facility. The neuropsychiatric section expanded as the war went on and at one stage occupied 344 beds in 12 wards—about one third of all beds in the hospital. In the first year of operation, the hospital had admitted a total of about 20,000 patients. With the recapture of the Philippines towards the end of 1944, the hospital moved north. The site was then occupied by 102 Australian General Hospital, which came over from Ekibin to the more comfortable and spacious facility.
105th General Hospital

The Agricultural College at Gatton was considered to be a suitable place for a hospital, and when 153 Station Hospital transferred to the Gold Coast, the site was taken over by 105 General Hospital, one of the two reserve hospitals of the Harvard Medical School. The headquarters of the hospital was in the Foundation Building, with staff accommodated in other buildings on the site. The wards were initially tented but over time moved to the huttered accommodation built by the Australian Civil Constructional Corps. The CCC had been established by the Allied Works Council under Director E. Theodore on 14th April 1942, and over time enrolled more than 75,000 men, a third of whom were conscripted under emergency wartime “Manpower” legislation. Most of the additional barracks, hospitals, roads and fortifications required by the enormous build up of Australian and US troop numbers were constructed by the CCC. 105 General Hospital remained at Gatton for two years, from July 1942 to July 1944, when the hospital moved north with the recapture of the Philippines.

Initially, the hospital acted as the General Hospital for the vast number of US troops in the area, with admissions for appendicitis, accidental fractures and venereal disease. Before the advent of effective antibiotics, those suffering from gonorrhoea were treated as inpatients for 12 weeks. The close proximity of troops in camps also meant viral respiratory infections complicated by bacterial pneumonia were common, and before antibiotics were treated with breathing and coughing exercises and frequent changes of posture directed by physiotherapy and nursing staff. The Guadalcanal campaign brought an influx of Marine casualties, but again the majority of cases were of malaria and malnutrition, reflecting the problem of bringing adequate supplies forward in the difficult terrain.
Though there were some interesting cases, the specialist medical staff from the prestigious Harvard University felt underutilised, out of the way and forgotten. There was also tension between the medical staff and their superiors, who tended to be regular army medical officers and who were held in some disdain by the university personnel. The consultant medical officers were also more used to giving orders than taking them, and had previously not needed to concern themselves with anything but the treatment of their patients. They also bristled at the need to maintain uniformity of treatment, whereas previously each specialist had practiced in his own way. These officers found it difficult to come to terms with the idea that the medical service was designed to return soldiers to active service as quickly as possible, and that they were expected to assist in maintaining the military morale of the patient and prevent the development of “hospitalitis”. To make matters worse, there was a general perception that the South West Pacific Area would continue to be low on the priority list of supply of material and personnel until the defeat of Germany. This “Germany First” strategy had been recommended by the US Navy’s Admiral Stark as the best of four options if war were to break out with Japan, and confirmed by the ABC (America, Britain, Canada) conference of early 1941, well before the United States was even an active participant in the war.

A line of wards of 105th General Hospital, 1943.

The view from the same spot in 2012, at GPS 270 33’ 22secs S, 1520 20’ 13secs E.

University of Queensland, Gatton Campus, 2011. The Foundation Building to the lower right of the avenue of trees and the water tower haven’t changed.
109th Fleet Hospital

This US Naval hospital was established on vacant land at Camp Hill behind the Camp Hill hotel by US Naval Construction Battalions (CBs, usually known as “Seabees”), rather than by the Australian Civil Constructional Corps. It became operational in June 1943 as Naval Mobile Hospital No 9 but was renamed Fleet Hospital 109 in June 1944. Prior to this facility being available, persons needing more advanced treatment than available in camp hospitals were accommodated in the nearby 112 Australian General Hospital Greenslopes, where 30 beds were reserved for them and at the Royal Brisbane Hospital. The Mobile Hospital had been designed to be quickly erected and dismantled, with the walls and roofs being of corrugated iron and thus very hot in summer, even though the Navy had always planned to use these mobile hospitals in the Pacific. Initially, the hospital establishment was for 500 beds, but this was later expanded to 1000 then further to a maximum of 2600 beds with an average of 1700 patients at any time. Battle casualties made up a higher proportion of patients than in the US Army General Hospitals, since they were initially treated in the hospitals on the naval ships and transferred to the Fleet Hospital when the ships docked in Australia. Army casualties, on the other hand, tended to be treated at more forward hospitals. Of 8411 patients admitted from January to October 1944, 511 were battle casualties and 1024 non-battle casualties, with the remaining patients suffering from tropical diseases and the routine illnesses and accidental injuries experienced by US Naval personnel in Brisbane. The hospital was dismantled and transferred to the Philippines in February 1945 with the land returned to the War Service Homes Commission. The paved roads laid out by the US Navy to suit their requirements meant that the post-war streets followed an unusual pattern, creating difficulties in fitting in regular housing blocks.
The Second Front: The War Against Malaria

Malaria (Old Italian “mala aria”, literally bad air) has been the silent enemy stalking military campaigns since ancient times. In World War I, malaria continued to play a major role in the planning and execution of campaigns. The British army in Macedonia recorded 500,000 admissions for malaria during the course of the war, which essentially neutralised the effectiveness of the troops and prevented any advances on the southern front. The Germans were to boast that Macedonia was their “largest prison camp”. The situation had not improved by the time of World War II. In the doomed campaign in which Britain sent some 60,000 troops to assist Greece in repelling a German attack in April 1941, malaria disabled many of the British and Commonwealth troops. The southern parts of the United States were also a malaria zone, worsened by the Depression, with an incidence in 1941 of 1.8 cases per year per 1000 of the population. Malaria had been a major problem in the desperate US defence of the Bataan Peninsula of the Philippines, notorious as a malaria-ridden area. The Japanese, incidentally, were probably even worse off, since despite control of the quinine producing areas, Japanese troops did not have access to antimalarial agents and after the US surrender were treated by American doctors.

Despite this prior experience, the allies were not prepared for the devastation caused by malaria in the New Guinea campaign. Before the introduction of efficient anti-malaria methods, eight to ten times as many soldiers were evacuated from the battle area because of malaria as were evacuated due to wounds. The casualty rate for US and Australian forces in New Guinea was approximately 10% killed in action, 20% wounded and 60% non-battle caused casualties, mainly due to malaria. The rate of infection of Australian troops was initially some four times that of US forces, due to the Australian tropical uniform being short sleeved shirts and short pants exposing more skin for mosquitoes to target, compared with the long sleeves and trousers of the Americans. Australian troops returning from the Desert Campaign were used to working and even fighting bare chested, and in the beginning of the campaign initially continued to do so as a defence against the very hot and humid conditions in New Guinea. Even later in the war, disease was the major cause of loss of fighting manpower. Between September 1943 and February 1944, 19,000 men—65% of the average strength of the 7th and 9th Divisions AIF—were evacuated with malaria and another 25% with scrub typhus, dengue and dysentery. The commander of Australian forces, Sir Thomas Blamey, said “it’s not the Nip, it’s the bite” (Nip being short for Nipponese and a derogatory name for the Japanese). General MacArthur stated “it will be a long war” if for every division he had in the field, another was in hospital with acute malaria and a third division was still recovering from its effects. There was also anxiety about malaria in the Australian civilian population. The evacuation of patients with malaria to the hospitals on mainland Australia meant the disease could be spread to civilians in the area, since the mosquito responsible for transmitting the parasite, the Anopheles (Greek “good for nothing”) was common in Queensland. Initially, infected personnel were sent south to Victorian hospitals, but this became unnecessary with aggressive measures to clear mosquitoes from the hospital environs and the widespread use of mosquito nets.

14
To make matters worse in the struggle against malaria, the supply of quinine, used to treat malaria since the 17th century, had been cut off by the Japanese invasion of the Dutch East Indies. Though the Cinchona tree, the bark of which contains quinine, is indigenous to South America, Dutch plantations in what is now Indonesia produced some 90% of the quinine used in the West. The Australian authorities had ordered 120 tons to be shipped to Australia when they realised that the Japanese were about to overrun the plantations, but the quinine was off-loaded from the ship due to accident or sabotage. The drug was replaced, in 1943, by quinacrine (atebrin, also known as Atabrine), a derivative of an aniline dye which had been discovered by German scientists working for the Nazi-controlled cartel IG Farbenindustrie in 1931. The drug was effective against several types of malaria if taken during exposure, and its effects continued for a few weeks thereafter. Because it was an aniline dye, however, persons taking it developed a yellowish hue and it was also rumoured to cause impotence, good reasons for soldiers to avoid taking it. These side effects, on the other hand, were less severe than those for quinine, a very bitter tasting agent which frequently caused vomiting and, in excess, a more serious disorder known as “cinchonism”.

In the earlier part of the war, anti-malarial measures were the responsibility of the medical units, but their advice was treated with the usual disregard soldiers showed doctors who were also continually warning them about the dangers of venereal disease etc. Measures against malaria did not become really effective until responsibility was transferred to the line officers, a measure which had been required in past wars. Benjamin Rush, Surgeon General of the US Continental Army in the War of Revolution in 1776, had stated:

“the skill of physicians and surgeons will avail but little in preventing mortality from sickness among our soldiers without the Concurrence of the offices of the army. Your authority gentleman is absolutely necessary to enforce the most salutary plans and precepts for preserving the health of the soldiers”.

Towards the end of the New Guinea campaign, troops were required to attend “Atebrin parades” where the tablets were taken under direct observation of an officer. The soldier then opened his mouth so the officer could confirm the tablet had indeed been swallowed, a procedure which had first been used by the British in Macedonia during the First War. Officers who failed to enforce malarial measures were threatened with dismissal.

Research into effective measures against malaria continued throughout the war, with US and Australian medical teams working in parallel. Some 16,000 chemicals were screened for activity against the malarial parasite. Colonel Neil Hamilton Fairley FRS, an Australian physician and medical scientist, as Director of Medicine of Allied Land Forces in the Southwest Pacific Area, was instrumental in promoting measures against malaria, establishing a malaria research unit in Cairns in June 1943. He switched Australian troops from the diminishing stocks of quinine to atebrin in early 1943. The dosage was 100 mg per day for six days in seven (never on a Sunday) in areas of high risk, and 100 mgm for three days a week (Monday, Wednesday and Friday) in areas...
of lower malarial prevalence. The efficacy of atebrin had been known for some years and was being used in the Southern US, but as is usual, the military wished to conduct their own trials in case of serious long term side-effects. The research laboratory at 42nd General Hospital, Holland Park, had access to a photofluorometer, and in conjunction with the Australian unit in Cairns, was able to determine blood levels of atebrin in persons with malaria and so work out appropriate dosing regimens. Finally, a conference in Atherton in June 1944 on “Prevention of Disease in Warfare”, where Fairley presented his work on antimalarial drugs, recommended draconian measures be taken to decrease the threat of malaria. By then, Fairley had been promoted to Brigadier; he was to be knighted in 1950.

The major success against malaria, however, came with increasing experience in preventing bites from the Anopheles mosquito. Personnel were required to sleep under nets and wear protective clothing, with their sleeves down at sunset. Finally DDT, which had been discovered in 1874 by Othmar Zeidler in Vienna but was not known to kill mosquitoes until 1939, was very useful in keeping the campsites clear of mosquitoes.

The measures taken against malaria were very successful. The taking of atebrin enforced by line officers, improved clothing which limited skin exposure and the use of DDT at camp sites meant that by the end of 1944, the incidence of malaria had dropped from at least 60% of combat troops to just 4%.
Other Non-Malarial Diseases

Scrub Typhus
Malaria was not the only disease encountered in the Southwest Pacific campaign. Scrub typhus had been first described by Japanese workers in the 1920s and is due to infection by the Rickettsial proteobacterium Orientia tsutsugamushi (from the Japanese tsusuga, meaning “illness”, and mushi meaning “insect”). It is transmitted by the bite of mites ("chiggers") found in dense scrub and as such, troops were constantly at risk of infection in the jungle fighting of New Guinea. It caused fevers, muscle pains and headaches and was often difficult to distinguish from malaria on clinical grounds. Prior to the introduction of suitable antibiotics, some 25% of infected persons died of the disease.

Countermeasures consisted of wearing insecticide impregnated clothing, (though this could be smelt at a distance and could betray the presence of the wearer to the enemy), bathing and scrubbing the entire body whenever possible, and clearing more permanent campsites of vegetation.

Dengue Fever
Dengue Fever was another problem which decreased the combat effectiveness of troops in New Guinea. It is a mosquito-borne viral illness related to other illnesses such as Yellow Fever which are spread by insects and known as Arboviruses (an abbreviation of arthropod borne virus). Dengue is usually asymptomatic or only causes mild headaches and fevers, but in some cases, persons develop the much more severe Dengue Hemorrhagic Fever and complain of the sudden onset of severe headaches and joint pains and are noted to have a high fever and a measles-like rash. Troops with the severe form were rendered combat ineffective and required evacuation, but despite the best treatment available, about one in four persons with the severe form died.

Dysentery
Armies in the field have been plagued with dysentery since ancient times. In the Southwest Pacific, Allied troops were commonly infected by either bacillary or amebic dysentery. The infection was often mild and caused few symptoms, but in persons weakened by other infections or exhausted and poorly fed these diseases could be very serious. Though the fighting efficiency of infected soldiers was greatly decreased, the disease was rarely fatal.

Dysentery was usually transmitted through direct contact with someone with the disease or by drinking contaminated water. Strict latrine discipline was required to counter transmission, yet was often difficult to enforce with exhausted troops fighting in very difficult terrain.
Conclusions

During the campaign in the Southwest Pacific, some two million US military personnel passed through Brisbane, the major US staging port for this area of operations. In the years 1943 and 1944, before the recapture of the Philippines, there were some 9000 US military hospital beds in the greater Brisbane area—ten times the establishment of the Royal Brisbane and Women’s Hospital in 2012. The hospitals served the many US army and navy personnel in Brisbane, and also cared for the sick and for some of the wounded in the campaign in the Islands. Though the US and Australian hospitals were often in close proximity, and the relocated 155 Station Hospital Ekibin was only some hundreds of yards from the Australian General Hospital at Greenslopes, there was little interchange between the Australian and US military medical services. The Australians continuing to use a British-based model throughout the war. When the US hospitals deployed north as the war progressed, little remained of their presence, though several sites were used as migrant hostels. Today, even people who live on the housing blocks whose streets were laid out by the US military remain unaware of the enormous presence of the US Medical establishment in Brisbane during World War II.
Bibliography


Dunn P Australia @ War  http://www.ozatwar.com/

Friedman M The 42nd General Hospital  Maryland Med J 44:889-892, 1995

Gill B Red Arrows, Green Pines Logan River & District Historical Society, Browns Plains, Australia, 2002

Greenwood J T Portable Surgical Hospitals US Army Medical Department; Office of Medical History http://history.amedd.army.mil/booksdocs/wwii/surgicalhosp/PortableSurgicalHospitals.html

Hays CW The United States Army and malaria control in World War II Parasitologia 2000 Jun;42(1-2):47-52

Kakkilaya B S History of Malaria during Wars http://www.malariasite.com/malaria/history_wars.htm

Major B (Ed) Medical Department Tables of Organization WW2 US Medical Research Centre, 2010

Maryland Historical Society Maryland in World War II: Volume 1: Military Participation. War Records Division, Maryland Historical Society, Baltimore, USA, 1950


Medical Department United States Army in World War II Preventive Medicine in World War II, Volume VIII Civil Affairs/Military Government Public Health Activities. Office of the Surgeon General, Department of the Army, Washington DC, 1976


The United States Army The 105th General Hospital: two years down under: a magazine prepared by the staff of The Post Record on behalf of personnel, as a memoir of their service in Australia from July 1942 to July 1944, during World War II

Walker A S Australia in the War of 1939-1945: Series Five; Medical; Volume 1: Clinical Problems of War Australian War Memorial, Canberra, Australia, 1952

Walker A S Australia in the War of 1939-1945: Series Five; Medical; Volume III: The Island Campaign Australian War Memorial, Canberra, Australia, 1952
WW 2 US Medical Research Centre 4th General Hospital: Unit History
http://med-dept.com/unit_histories/4_gen_hosp.php

WW 2 US Medical Research Centre 155th Station Hospital: Unit History
http://med-dept.com/unit_histories/155_sta_hosp.php


Dr Daniel Hart, RAAMC, World War II and British Commonwealth Occupation Forces Japan. Personal Communication, July 2012

Dr Murray Elliott, RAAMC, World War II and BCOF Japan. Personal Communication, July 2012