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This thatory was concerned during the Nov. 1984 Nictoria. Survey association Reunion, and was printed by the Survey Borps and launched at the November 1987 Reunion with Brig. L. Tilzgerald and Brig. D. Macdonald being present.

Brigadier (RL) Lawrence FitzGerald, OBE, in his book "Lebanon to Labuan" has told the story of mapping by the Royal Australian Survey Corps in World War II (1939-1945). Jack S. Viccars in his History of New Guinea Survey Section (later & Australian Field Survey Section) tells the story of one of the smallest field survey units. It operated in New Guinea for the Drief period from March 1942 to November 1943, but in that time was involved in providing maps for some of the most significant operations in Australian War History.

New Guinea was the most forbidding battlefield in World War II. In particular, the area from Port Moresby to Buna where the Kokoda Trail Campaign was fought was a military nightmare. The mass of towering tangled mountains and swampy coastal strips had an annual rainfall of up to 300 inches. Dense rainforest covered most of the area and topographical information was so meagre as to be practically non-existent.

In late January 1942, in continuance of their southward thrust, the Japanese occupied Rabaul and Gasmata on the Island of New Britain. This was followed by the occupation of Lae and Salamaua on the New Guinea mainland in early March. The Allied Naval actions in the Dattle of the Coral Sea in May 1942 and the Battle of Midway in June 1942, ruled out the original plan for a Japanese amphibious landing at Port Moresby.

On 21st July, a Japanese force landed in the Runa-Gona area with the object of advancing inland to Kokoda and then attacking Port Moresby by way of the Kokoda trail. Despite the determined opposition from the limited Australian forces, Kokoda was occupied by the 14th August and by 21st September, the Japanese had advanced as far as Ioribaiwa which was within 35 miles of Port Moresby. This was the furthermost position reached by the Japanese and their repulse by the Australian forces combined with their defeat at Milne Bay in early September saw the turning of the tide. However, many months of intensive fighting, under the most adverse conditions of terrain and weather, were to ensue before the recapture of Buna and Gona in December 1942, followed by Nau and Salamaua and Lae in September 1943.

The New Guinea Survey section was the only Survey unit in New Guinea until the arrival of a detachment of 2/1 Australian Army Topographical Survey Company in Moresby in November 1942 and No 3 Section of 3 Australian Field Survey Company at Milne Bay. The Survey build up continued in 1943 with the movement to Port Moresby of 3 Australian Field Survey Company and the Headquarters and Lithographic Section of 2/1 Australian Army Topographical Survey Company in February 1943. These units relied heavily and received great support from Survey units on the Australian mainland.

The history of the New Guinea Survey section should be read against the background of the operational situation in New Guinea in 1942-43 and the adverse terrain and weather conditions.

Jack Viccars is to be congratulated for his initiative in producing this history which will be read with great interest by all members of the Royal Australian Survey Corps, and all Australians who realise the tremendous debt they owe to the members of the services involved in the fighting for occupation of New Guinea in 1942-43.

D. Macdonald.

D. Macdonald Brigadier (RL) Royal Australian Survey Corps 1936-67.

VALE NOEL (JERRY) OWERS

Died 20/2/1990, Aged 82 Years

(Obituary supplied by his surviving twin son Noel)

Jerry OWERS, Born 1907 in Sydney, was a student of the depression years and, as a newly qualified surveyor in the early 1930's, could not find work. Ultimately he obtained a job with New Guinea Goldfields Ltd in 1933. This was to be the start of a life-long occupation in New Guinea.

His knowledge of the harsh New Guinea terrain was to prove invaluable. In the course of the war the Australian army was trying to find a way over the Owen Stanley Ranges If the advance of the Japanese army was to be stemmed. Jarry Owers was given the following instructions: "Set out and mark a two-way all-weather track". As days went by and no runner came back from the sheer mountain tops and narrow precipitous gorges, a second runner went out: "Mark a one-way road with passings".

Time went by and more messages were sent out. The final command was: "Cut a bloody mule track". This he did, an impossible task, at an impossible time in an impossible country. As such he was mentioned in dispatches and resulted in Coi. Bleechmore naming "Owers Corner" near the start of the now famous Kokoda Trail. He then went on to serve with the A.I.F. in New Guinea and Bougainville, rising to the rank of Captain before returning to Australia, and was soon presented with his only daughter, Marybeth.

After the war, he returned to Wau and was instrumental in re-establishing New Guinea Goldfields Ltd. A typical example was his negotiating with the American army for the purchase of eight army jeeps for \$80 (\$10 each).

It was another tribute to Jerry Owers that he, with the aid of Alec MALCOLM, another New Guinea pioneer, and the New Guinea Mines Dept., set up a monument marking the spot for posterity where, in 1923, "Shark-eye" PARK made his first gold strike on the Koranga River. This strike was to establish a goldfield in the Bulolo-Wau valley which is still flourishing today.

He retired from New Guinea in 1972 and resided in Sydney until 1984 when he moved to Perth to reside with his daughter, Marybeth.

The 3rd Australian Field Survey Co. Association Reunion during September 1984 brought together six of the members of the 8th Australian Field Survey Section, 1942-1943.

As usual, memories about old comrades and the events of 1942-1943 in New Guinea were being discussed. The fact that memories were becoming dimmer, that some of the members had passed on, and also it was a pity we did not have a history we could refer to and show the younger generation of our respective families. It would also be a record of one of the small Survey Sections, carrying out mapping operations in an operational area which may be of interest to the Survey Corps generally, and to this end it was decided to pool our memories and see what could be done to write the story of the 8th Section in New Guinea.

Military survey in New Guinea began its life in World War II with the formation of the New Guinea Force Field Survey Section which became 8th Australian Field Survey Section and ultimately 2 Field Survey Section of 6th Army Topographical Survey Company.

The members of the Section are scattered throughout all states of Australia, with the exception of the Northern Territory. I became the collector of information from many members. Other sources of information were also available.

Many hours were spent contacting various chaps, finding more addresses, then making further contact with more of the old Section members. It was interesting to note that having contacted many old friends I had last seen in Lae in 1945, the old camaraderie of those days was still very evident. In some cases where it was possible to meet in person the conversations were carried on as though it was only a week or so since we had last seen each other, although it was evident from the greying and thinning hair and the added weight that we had not been climbing many hills of late, nor carrying out plane-tabling and barometer heighting walks! Altogether I have been able to contact 24 members of the Section.

Several members have found diaries they had forgotten about until their memories were jogged. Photographs taken by Alex Lynch (showing a much younger group of men! were made available. A visit to Central Army Records clarified the personnel, their comings and goings etc. during the time in New Guinea. Brigadier Don NcDonald helped by making a copy of the Unit War Diaries as kept by the OC of the unit. I was also able to obtain some of the maps we did on both sides of the Owen Stanleys, which made it possible to follow the stories of various trips that were carried out. They are on loan from the Survey Map Depot.

With all this information, although many starts were made, rewriting sections when more information became available, I have been able to cover the movements and events of those days fairly accurately. However, No. 1 Sub-section's exploits in Wau were a lot harder to cover. The Wau section stories were the result of five of the members who separately wrote to me of various events that took place at that time. With cross checking and referring back to them in some cases, I was able to get some coverage of events in Wau during a very confused, dangerous and hectic period.

This is the story of an Australian Army Survey Section, some of whom were civilians in Port Moresby, drafted into the Army and posted to Survey, others were from various infantry units, others a group of trained volunteers from Australia. They arrived to face a situation that in no way resembled formal methods of army topographical surveying for which they had been trained in Australia. There had to be a great deal of adaption and innovation to enable the work required by the New Guinea Force Headquarters to be carried out.

Many more stories and events of the period could be written as is the case with all army units, however, I have tried to keep the story factually and chronologically in step with the record of the survey work carried out at the time. There are many good stories around, maybe some other section member may at some time write them for the National Bulletin.

Jack S. Viccars.

THE BTH AUSTRALIAN FIELD SURVEY SECTION - A.I.F.

NEW GUINEA 1942-1943

In December, 1941, when Japan entered the War, the situation in New Guines changed and when plans were being made for the defence of Papua New Guines it was realised that mapping generally and Army mapping in particular of the area was virtually non-existent.

On the 17th April, 1942, Brigadier Porter arrived in Port Moresby to take command of the 30th Brigade. He was informed by Brigadier Hatton when inspecting the defence areas, 'there are no maps of the hinterland, only Navy charts of the coastline'.

A state of emergency was proclaimed on 27th January, 1942 and a call up of civilians in Papua New Guinea was ordered by Major General Morris who was at that time the military administrator and General Officer commanding the New Guinea Force (NGF). Orders were also issued for the raising of a Survey Section.

A local government surveyor, Mr. E.C. O'Reilly, was transferred from the General Details Depot, NGF on the 2nd March and promoted to Lieutenant as OC of the New Guinea Survey Section on the 11th March.

Other officers to be posted to the Section were Lieutenant G. Owers who had been working in New Guinea as a surveyor and engineer during 1941 and was also a member of the New Guinea Volunteer Rifles. Lieutenant C.B. Davidson was also posted to the unit until June when he was transferred to the hospital at Bomana Mission and was invalided out having caught blackwater fever while working at Kokoda in 1941.

Jim Miller, who had been a surveyor with the Australian Petroleum Company, joined the Section on the 7th March and was promoted to Corporal in April and Sergeant Surveyor in August.

The main body of the Section was raised from two groups of personnel. The first group were from the military forces. Some were from the 49th Battalion Intelligence Section and others from the NGF Training Centre and the following men arrived on the 7th March:

Sappers Ken 'Curly' Cameron Athol Green
Kevin Giblin Wally Keenan
Bill Thomas Des Skinner
George Weier P.H. Hines
Vince Victor W.A. Lamberton
Gerry Hodgkinson Ken Harrison

The second group came from civilian enlistments. The Commonwealth Department of the Interior at Port Moresby had architects and engineers on the staff when the Army took over the administration of the country. All civilian males were inducted into the Army if under the age of 45 and in good health, otherwise they were evacuated to Australia with the women and children.

The technical staff of the department were sent to a camp at the 12 Mile, near Bomana, and attached to a Royal Australian Engineer unit. After a few weeks spent in dismantling timber barrack huts, which had been laid out in neat rows and re-erecting them in dispersed locations, the architects were allocated to the newly formed Survey Section.

Members of this group were:

Sappers Ralph Phillips Ray Powell

John Brown Gordon McKenzie Vince Simmons

Also in this group were:

Sapper F. Tealby

Corporal Bob Evans Warrant Officer Class 2 Otto Krutli

The posting of this group took place on the 9th March. Ralph Phillips was promoted to Sergeant and John Brown to Corporal. The New Guinea Survey Section was now operating from Murray Barracks and had a strength of three officers and twenty-two ORs. Most of the equipment being used had been commandeered from various government departments, oil and mining companies. No aerial photographs were available, triangulation control was non-existent and the surveying was all being carried out by theodolite and stadia traverses and plane tabling.

The areas concentrated on were around the Murray Barracks 4 Mile through to the 7 Mile Drome. (The 7 Mile Drome was later named Jackson's Aerodrome in honour of Squadron Leader John Jackson who lost his life after many months of operations against the Japanese in New Guinea.) The coastal area from Koke to Bootless Bay, which included the Kila Kila Aerodrome was also being mapped.

The Section's only transport was a commandeered civilian utility that had a varied life with the unit, on and off the road. It was on one occasion abandoned by all personnel, including the driver, when caught on an open section of road by a low-flying Zero - the utility rolled off the road and stopped against a tree, with no more damage than another dent. During July it was returning from Port Moresby, driven by Corporal Tom Hartley, when the line of vehicles had occasion to stop suddenly. However, stopping suddenly was something the utility was not used to doing, so the staff car in front, complete with colonel, received a bump. The colonel enquired if the vehicle was on the establishment of the unit, he was assured it was, so he then arranged for it to be scrapped and the Section received a new 30 cwt. truck. The utility was finally sent to the scrap heap in late July.

Port Moresby experienced its first air raids on the 3rd and 5th February, 1942. The first attacks were aimed at the harbour installations and the Catalina Squadron. A few days later the target was Murray Barracks and was the first of the 100 plane raids.

During one air raid in March when the Survey Section was at Murray Barracks, all personnel were making a run for the trenches when 'Curly' Cameron was seen by Jim Miller to stop suddenly and run back to the hut in which the Section had an old refrigerator. He came back at the double and joined Jim and two others in the slit trench, he was now carrying four bottles of beer. Curly was concerned that a bomb may hit the hut and destroy the last of their beer. They decided to drink it while in the trench!

Because of the continual bombing of the Murray Barracks area, it was decided to move some of the units to other locations. The Survey Section was moved to 15 Mile and were all under canvas with a small hut for draughting and office work. Shortly after the move to 15 Mile, during one of the many bombing raids which took place on the moonlit nights, the Section suffered its first casualty. Athol Green, in endeavouring to take shelter in a trench, stumbled into a hole and landed on a broken bottle. As Athol had no boots on, he suffered a badly lacerated foot and had to have several stitches. He was known as one who did not take kindly to boots, preferring to move in bare feet. However, boots did become an integral part of Athol's feet after that experience.

Local emergency sheets were the priority and the work now extended to the Loloki and Goldie Rivers to the west and around all aerodromes.

During March 1942 the Australian New Guinea Administrative Unit (Angau) was formed and two of the members of the Section who had been in the Territory during civilian days and were familiar with the administration of native affairs marched out to join the Unit. They were Frank Tealby and Gordon McKenzie. Warrant Officer Class 2 Krutli returned to Australia on the 9th April, 1942.

By the end of March 1942 some semblance of order was apparent in the Section with definite compiling and field sub-sections operating and demands for their services were many and varied.

Sapper Les Cahn was promoted to Sergeant on the 20th July, 1942 and shortly after this he was transferred back to the mainland to join an RAE Unit in which he had held commissioned rank before the War.

On the 21st March, two members of the Section were plane-tabling in the vicinity of Jackson's Aerodrome. Suddenly they were in the middle of aerodrome defence gun-fire as troops opened fire on what they thought was Japanese fighter aircraft attacking the aerodrome. However, in reality, it was the unscheduled arrival of the 75th Squadron Kittyhawks. This squadron, who through unforeseen circumstances did not arrive on earlier occasions when scheduled, became known as the 'Tomorrowhawks Squadron'. Fortunately no personnel were injured, although the Kittyhawks were full of holes.

During April 1942, some of the Section were now working around the Hombrom Bluff area, the Sogeri Plantation and the possible track from Eilogo to Rigo. Lieutenant Owers worked through the Koitaki area and up the track to Uberi. Owers Corner was to carry his name and be well known to troops moving up and down the Kokoda Trail.

In May 1942, the Japanese fleet sailed from Rabaul and their destination could possibly have been Port Moresby, with a landing in the vicinity of Bootless Bay. The draughtsmen of the Section were working around the clock preparing locality sketches of the areas. During the day they reproduced maps by sunprints on dyeline paper. The threat to Port Moresby was removed by the victory of the American naval and air forces during the Coral Sea Battle.

May and June was a time of consolidating information on the Port Moresby defence area, gathering as much information as the small Section was capable of, learning, while working, the concept of topographical mapping which the majority of the personnel of the Section had never before been involved with in their civilian or army life.

Sapper W.A. Lamberton transferred to the 30th Infantry Battalion on 22nd June, 1942.

Meanwhile, in Australia, in May 1942, the notice board of 3rd Field Survey Company, at Colac in Victoria, promulgated a Routine Order calling for volunteers to join a new section to be formed and sent overseas to an operational area where 'the bombs are falling'.

There was an enthusiastic response and on 30th May, 1942 the final list was posted:

Warrant Officers Class 2 Len Heron Frank Shera

Sergeants Wally Gillard Ian Townsend

Corporals Alan 'Blondie' Nelson

Tom Hartley Harold Day Alex G. Lynch

Alex Fulton

Robert L. Roche

Bruce H. Browne

Neil 'Wingie' Pearson Bernie H. McDonald

Jack S. Viccars

Alan Ted Long

Keith 'Ackie' Barber

Phillip Gibbs Ian Laughlin

Brian 'George' Murray

Sappers Barry W. Kemp

H.E. 'Mac' McHenry

Robert Bogie Stan Verey

Peter Roberts

P.S.J. 'Chips' O'Brien

Ray 'Tiny' Mansfield

Ray Ball

William E. Franklin

Terry Wyhoon

Leo Kirby

Ron Smale

Stewart Scott

A.P. 'Joe' Davies

All personnel in the new Section were given four days leave prior to receiving medical examinations and needles at the Caulfield Racecourse Depot.

During the next two weeks infantry training, a range shoot, issue of personal gear and packing of technical equipment took place.

Captain J.K.C. Herridge who had recently arrived back from the Middle East was given command of the Section and arrived at Colac to meet the personnel.

The last day at Colac was Friday, 19th June, 1942. At the Company parade the OC of 3rd Field Survey Company, Major D. Macdonald, bid the New Guinea Section 'Farewell and Good Luck'. Final packing and farewells to friends in the 3rd Coy were said with the usual 'You'll be sorry mate'.

The Section moved to the Caulfield Racecourse and were given leave for Saturday and Sunday. This would be the last leave that the men would have for many months. The morale of the Section was very high and all personnel were looking forward to the move north. At Spencer Street station, Monday, 22nd June, 1942 they boarded the 2nd Division of the Sydney Express at 1800 hours and left the lights of Melbourne behind them.

On arriving at Sydney they were billeted at the Showgrounds for two days and again enjoyed leave before going aboard the S.S. Anhui, a ship of some 6000 tons that had previously sailed the China Coast and had now been cleaned up for transport duties.

The complement aboard was about 1000 men, most of them were to sleep in the various holds in hammocks. This was a new experience, it was a pleasure to greet each day by getting up as soon as possible and going up on deck, as the humid conditions and odours of the hold were not very pleasant.

Some of the Section personnel travelled on the S.S. Bantam which was carrying the technical equipment. Late on Friday, 26th June, 1942, the convoy sailed from Sydney Harbour and headed north; the convoy consisted of four troop transports and two escort naval ships of corvette size.

As the ship passed through Sydney Harbour Heads the swell caused a slight roll and some of the men became seasick with disastrous results when rushing to the rails on the windward side of the ship. The cooks kept the rations coming for the entire complement of troops which meant that the fit men always had plenty to eat.

Who could forget the messing arrangements, where to get to the mess tables meant passing the ablutions and toilets and the mess orderlies had to negotiate the companionways leading from the kitchens one deck above the mess area. It was always a pleasure to see your particular orderly safely reach the foot of the companionway steps with the tray intact. Fortunately we did not have very much bad weather and the ship was steady, although we still had a number of the Section personnel who were unable to face the thought of eating each day.

The daily inspection by Officer Commanding Ship's Personnel was always an interesting exercise. Depending on where you were on the ship, when the OC's party arrived, lead by a bugler who sounded several notes on his bugle to get the attention of the troops, you then stood to attention while the OC walked through the area, followed by the Orderly Officer, the Orderly Sergeant, the Orderly Corporal, and last but not least the Runner. As they disappeared to other parts of the ship the bugle could be heard at odd intervals until the ship had been traversed.

FINE OF 13 JUNE/AZ FUST HIT OF 1 DOWNS ON ITH JUNE (IS BOMBES) RELECTING DAY AMOTHER RAID MED AGAIN HIT BY A BONSO - CANT CAMPBELL BEACHED INACOHOL IN SHALLOW WATER.

Amongst the troops on board were members of the 14th Field Regiment. Some of their guns were deck cargo and lashed in various positions, one was on the stern and facing backwards. One day while sailing up the Whitsunday Passage empty boxes were thrown overboard and as they drifted astern a shoot was carried out by the artillery troops. The resultant gunfire was heard by a naval corvette (not belonging to our convoy) which was sailing behind a nearby island. The corvette came into sight around a headland of the island at maximum power, but after being informed of the cause of the gunfire reduced power, quickly slowed down almost to a stop and then quietly sailed back out of sight behind the island.

The 14th Field Regiment were later to distinguish themselves by hauling two 25 pounders through the New Guinea mud to the hilltop above Owers Corner and opening fire on the Japanese forces at Iorobaiwa Ridge.

The convoy anchored at Townsville at daybreak on the 2nd July, 1942. Sapper S. Scott was sent ashore sick, he later rejoined the unit in New Guinea. The convoy sailed later in the day and was joined by an additional naval escort, the destroyer, NMAS Swan.

The island of New Guinea appeared on the horizon late on the afternoon of Sunday, 5th July, 1942 and we were greeted with the sight of the wreck of the S.S. Macdhui with the last whisps of smoke coming from it. The ship had been sunk the previous day when Japanese bombers had attacked the harbour area. The Section moved down the gangplank on to the wharf at 1830 hours and was transported to a camp about 24 kms from Port Moresby where they joined the original New Guinea Field Survey Section.

One very obvious difference observed at both Townsville and Port Moresby was the night lighting situation. After leaving Melbourne and Sydney where having a torch shining at night could bring the wrath of officialdom upon one's head, to see Townsville's waterfront well lit and the Port Moresby area generally all lights on until an 'Aircraft Red' alert caused them to be turned off, was an amazing change.

The following morning after our initial settling in period, we started to learn about life in a tropical operational area. The Japanese airforce did not have a lot of opposition at this time as Australian and American aircraft were very few in number. The Japanese were very orderly with their bombing routine. They used to visit Port Moresby at either 1000 hours or 1400 hours and sometimes at both times of the day.

The raid carried out on our first morning was our introduction to the action. Twenty-five bombers accompanied by fighters arrived on time, flying high and heading towards Jackson's aerodrome. The Section personnel all gathered around the top of the slit trenches when the air-raid warning sounded. As the bombers were not heading towards us no-one had got into the trenches, but stood watching the bursting anti-aircraft fire. However, that changed dramatically when the A.A. shrapnel returned to earth with a strange whistling sound.

The camp was situated near the Loloki River and Hombrom's Bluff rose out of the jungle across the other side of the river to a height of 2177 feet. The river was a blessing as far as washing arrangements were concerned.

By the end of the week the technical stores and the remaining members had arrived in camp as the S.S. Bantam had been unloaded.

Coming from a Victorian winter to the tropical climate of New Guinea was quite a change and during the time in New Guinea a lot of time would be lost as personnel developed various tropical illnesses and fevers.

Surveyors and draughtsmen were being briefed by the original members of the Section as to the existing maps and information available to enable work to be carried out as required by the priorities which the New Guinea Porces HQ had set down as being urgent maps.

In the New Guinea area the map grid used for military maps was the Netherlands East Indies (N.E.I.) grid on the Lambert Conical Orthomorphic Projection. Maps would be produced using a one thousand metre map grid and heighting contours would be shown in feet above sea level.

There was no triangulation control available inland from Port Moresby and one of the first technical tasks was to extend an existing RAN triangulation survey which had been carried out by Commander Hunt around the Port Moresby harbour area. The RAN triangulation was a coastal survey and it was found that there were no heights. To suit the requirements of military topographical mapping the triangulation was to be extended inland to cover the areas for immediate mapping and to also establish vertical control.

The mainland practice of using heliographs for observations was not appreciated by other Army units, especially the anti-aircraft gunners who occupied several of the hills around Port Moresby, so battery operated Lucas lamps were substituted for the heliographs. Elsewhere, when possible, beacons were erected.

The country around Port Moresby and inland to the ranges was ideal for triangulation as there were many prominent hills which only had sparse medium sized trees and were covered with kunai grass. In some areas around the river flats the kunai grass was head high and seeing any features from these areas was virtually impossible. Movement was usually by foot along the tracks which lead to villages. Many of these villages had been abandoned by the native people who had moved further away from the danger area. Roads were few and became less as you moved away from the Port Moresby district.

Generally the unit transport was inadequate and sometimes to get to distant and difficult locations it would be necessary to seek help from other units. On one occasion Sergeant Wally Gillard approached a Bren gun carrier group and spoke to their OC of the difficulty of transporting men and gear to the location where it was required to work. It was out near the Brown River on the northern edge of the Port Moresby map. He agreed to send a reconnaisance patrol of carriers and took as passengers Sergeants Gillard and Townsend, two ORs and equipment. As it was a two day reconnaisance the surveyors were able to be dropped off at their work place, carry out the resections and be picked up by the returning carriers the following day. This type of operation took place on a couple of occasions and the field parties were very appreciative of the help provided and it made it possible for more rapid cover of field work.

The task of co-ordinating the triangulation was carried out by Warrant Officer Len Heron who moved with his field parties from Port Moresby and surrounding areas up to the Astrolabe Ranges, Hombrom Bluff and right through the Uberi area. The Uberi map had the names of several of the section members for previously un-named features and on the Port Moresby 1:63360 a range in at the North-East corner bears the name 'Heron Range'.

At this time aerial photographs were not available and when finally the 8th U.S. Army Airforce Photographic Squadron was able to produce runs of photographs they were tri-metrogon. These were runs of photographs taken with three cameras mounted in the aircraft so that the overlapping photographs covered from horizon to horizon.

Conditions in New Guinea were not always ideal for flying at the best height for mapping work, quite often parts of the area to be photographed would have partial cloud cover, and because the Japanese took a dim view of the American aircraft flying over them the pilots would only have a chance to do one run.

The tri-metrogon photography introduced new methods of compilation and plotting that the section draughtsmen had not previously experienced. While trying to devise a plotting method by looking through all the available literature on mapping, one book in the unit library (with the unlikely title of 'Hints to Travellers') was being read by Len Heron. The name was misleading, as the book was a British Ordinance Survey Reference book on military survey. It had a section on the use of obliques and as the method developed from the source proved satisfactory, the section was able to make use of the obliques for mapping. It was not until the arrival, in December, of Lieutenant G. Campbell-Kennedy that the correct plotting methods were explained to the draughtsmen. He had been able to acquire this information in Australia.

Annotation, heighting and compilation of the jungle areas and the Owen Stanley Ranges were found to be very difficult. The tracks between villages disappeared into the jungle and the actual position of the tracks, which was so important, was difficult to trace. The position of these tracks was the subject of much discussion and stereoscopic examination, often carried out in the company of New Guinea Patrol Officers, plantation owners and managers who had travelled the area and quite often it was not possible to get them to agree with each other!

Colonel Chilton, General Staff Officer and Lieutenant Colonel Pitt, G.S.O.2., visited the section and in discussions with Captain Herridge, the priority of mapping areas was defined. The area to be concentrated on was from Longitude East 147°00' to 147°30', Latitude 09°22'30" to 09°37'30" South. This took in the Port Moresby defence area through to Uberi.

On the 26th July, Acting Sergeant G. Hodgkinson was transferred to the Queensland $\mathbb L$ of $\mathbb C.$

Sapper P.B. Hines was transferred to Redbank Hospital, Townsville, on the 27th July and boarded, medically unfit, on the 12th November, 1942.

On the 21st July the Japanese forces landed at Gona and Buna, advancing towards Kokoda and although forward troops of the 39th Militia Battalion fought valiantly, the Japanese were able to capture Kokoda on the 29th July, 1942.

AUGUST, 1942

A new camp was to be constructed and the location chosen was further from Port Moresby, in a gully across the road from the Loloki River and would become known as the '17 Mile' to all Survey Section personnel. A new draughting and orderly room hut was to be built on the top of a rise above the gully and about 100 yards up the track from the road would be the site of the cook-house, mess-tent, Q-store, RAP and the transport tent. A section of Engineers with several of the Survey Section personnel had started work on the 19th July. The section moved into the camp on the 2nd August and during this month the name of the Section was changed to 2nd Australian Field Survey Section.

The section had all settled down to the routine of mapping the Port Moresby defence area. Field work, comprising resections, stadia traversing and plane tabling was carried out, and the draughting staff were compiling the information as quickly as it could be passed on to them, producing special maps to cover the areas between Buna, Kokoda and Port Moresby.

HQs staff were also functioning in their various areas. The Orderly Room duties were carried out by Corporal Ian Laughlin, who slept in the Orderly Room so that at all times the telephone could be answered, especially when an 'Air Raid Red' warning was telephoned to all units.

Corporal Phil Gibbs was in charge of the 'Q' store and the RAP, Sapper Ray (Tich) Mansfield was in charge of transport. A man nobody would ever forget was our cook, anyone who had eaten at Survey HQ 17 Mile would remember Mac McHenry. His gourmet dishes of meat and vegetable, topped with cheese, were 'Famous', as was the 'disheloth' (which was also used for a variety of jobs).

Draughting personnel were under the supervision of Warrant Officer Class 2 Frank Shera and Sergeants Bernie McDonald and Ralph Phillips. Many a night was spent working under Tilley lamps to get maps finished so that on the following morning they could start producing sunprints to be forwarded to New Guinea Force Headquarters.

Field parties worked from Headquarters each day, returning where possible without too much travel, however, as the work area became further from 17 mile the field parties would take the necessary rations and stay away for a week at a time, only returning to bring in field information, wash clothes, draw more rations, then return to the field.

Early in August a section corporal surveyor was attached to the 30th Infantry Brigade to move with the infantry reconnaissance patrols carrying out compass traverses of the tracks as they moved through the Uberi-Sogeri area. During the time through to December there were many extra duties other than actual map surveying and compilation that the survey personnel were called upon to carry out.

A 2 mile to 1 inch Kokoda to Gona map was to be compiled from two runs of tri-metrogon photographs which had just been flown. The map became a priority task and all draughting personnel available (using control from an existing 4 mile Buna map) were able to produce 17 sunprints, which were handed over to Major Vial GSO2 Operations on the seventh day after receiving the photographs.

The same day Captain P.A. Kennedy arrived in Port Moresby to be Survey Staff Officer to Brigade General Staff. A week later Captain Kennedy was able to collect a further 50 copies of the Kokoda-Gona map which had additional information added.

The Section received the first of the aerial photographs of the Port Moresby defence area. Four runs of tri-metrogon photographs became available so it was now possible to speed up the production of the Moresby Defence area 2 inch to 1 mile.

On the 26th August Japanese troops landed at Milne Bay but the preparations at Milne Bay had been well advanced, therefore the Army forces under the command of Major General G.A. Clowes and Brigadier G.F. Wooten, with Air Force support, were able to attack and defeat the Japanese forces causing them to retreat and leave the area on the night of 3rd/4th September. This was probably the first time land forces of the Japanese army had been defeated and forced to withdraw from a beachhead.

On the 15th August Lieutenant G. Owers and ten OR left 17 mile HQs to carry out location work on a proposed road to go from Port Moresby to Kokoda. The following extract from a diary kept by Corporal A. Lynch describes the next four weeks:

15th August, 1942:

Left 17 mile in 30 cwt. truck with George Weier, Bill Thomas, Des. Skinner, Ray Ball, Neil Pearson, Ian Townsend, Harold Day, Bob Evans and Peter Roberts. Lt. G. Owers in charge of party. We arrived at Elolo at 11.30 a.m. This is as far as the road went, we were to proceed from here. We arrived at Uberi at 4 p.m. after some very rough going. We were told that the Japanese were about 30 miles away and were being held by the 30th Ballation.

16th August, 1942:

We left Uberi at dawn, leaving Lt. Owers, Cpl. Day, Evans and Spr. Roberts behind - they were going to begin the survey for the road from there. This was the worst day's experience that I had in New Guinea. I reached Ioribaiwa at 5 p.m. after nine hours of walking through hell along the mountain track. The 53rd Battalion Militia were on the way up also - the fellows had a hell of a load and were completely done in. The 2/14th Batt. A.I.F. were a day's journey behind us.

17th August, 1942:

Left Ioribaiwa at dawn for Nauro - passed the 53rd Batt. on the way as we were now travelling light. Met many wounded coming back on the trail, they were the 39th Batt. We were now about 20 miles from the Japanese lines. We reached Nauro at 3 p.m. and at 6 p.m. the 53rd Batt. arrived. The 2/14th and 2/16th A.I.F., we were told, had arrived at Ioribaiwa that evening, 7 Division troops. At Nauro we left most of our heavy gear as this was to be our base. We were to break into two parties. No. 1 party: Lt. Martin of the Engineers, Bill Thomas and myself. No. 2 party: Ian Townsend, George Weier, Des Skinner, Ray Ball and Neil Pearson.

18th August, 1942:

No. 1 party left early with eight natives as carriers. We struck northeast of Nauro into the jungle covered mountains. The other

party were to follow later and grade the track we were blazing. All day we hacked through bush, spent the night at a deserted village called Orietana, height 6000 ft. Very cold - but no mosquitos.

25th August, 1942:

We returned to Nauro for fresh supplies and a rest. We heard that the Japanese had broken through and that the 2/14th and 53rd Batts. had a bad time of it. Pood and equipment was being dropped at Nauro by Douglas Aircraft. The Japanese were now only about 15 miles away, but we hoped for the best and set off into the jungle again. We cut through for two weeks, until the 9th September, and were making good progress towards Lt. Owers party - which we should meet in a few days.

9th September, 1942:

On the morning of the 9th gunfire was heard several miles away. This kept up all day, so we sent a messenger to Nauro to find out how things were going for us. It was the last we saw of him as the Australians were withdrawing from Nauro on the 10th September. As no reply came, Lt. Martin and Bill Thomas decided to cut through the jungle to Ioribaiwa to find out what was happening. I was left in charge of our equipment and seven scared natives! That evening saw no return of Charlie and Bill, but a police boy came through with a message from Charlie saying the Japanese had taken Nauro and that I had better leave all the equipment and get out before I was cut off. I decided to remain the night and leave at dawn. No sleep that night - I made the natives put out the fire and posted them in the jungle to give the alarm in case we were attacked. I sent word down the track to No. 1 party telling them of my plan and to meet me at dawn. In the morning gunfire could be heard in the Nauro valley and our planes were bombing the village, so the Japanese had taken Nauro. It looked doubtful whether we would get to Ioribaiwa - but we did make it that night after dodging a Japanese patrol. We left Ioribaiwa next morning for Uberi, the Australian troops were withdrawing from that day. Wounded were pouring in, and Ioribaiwa came under gunfire that evening. We had made it by a few hours! On arriving at Uberi we found that the road now reached within a mile of the village. The 14th Field Engineers were doing a great job. We decided to go back to Port Moresby as there was no hope of getting any work through with the Japanese in the way.

16th September, 1942:

We arrived back at H.Q. 17 mile to see many new battalions going up to the front, also Artillery - now we would get somewhere.

One of the tasks performed during this period concerned a party comprised of Jim Miller, Bob Roche and Brian Murray. The Fort Moresby wharf was to be extended and the Engineers requested the positioning of the corner pile of the extension. Jim Miller remembers the work being carried out in the following manner:

Fixing the position of the outside corner pile for the proposed extensions of the existing wharf raised the problem of how to mark the position of this pile, which was to be the first driven. The pile was already suspended on the piledriver that was aboard a large barge and floating in the vicinity of the extension. The party was equal to the occasion and a solution was achieved by setting up a theodolite on the corner of the existing wharf on the alignment

of the outside of the wharf. A second theodolite was on the shore at a point equal to the length of the proposed wharf extension and at right angles to the bearing of the alignment of the outside of the wharf. The barge was then manoeuvred by means of mooring ropes until the monkey of the piledriver was at the point of the intersection of the two projected lines. It was eventually accomplished to everybody's satisfaction in a few hours, despite the interruption caused by a bombing raid on the shipping in the Harbour.

Others remember the Engineer Officer wondering why it took Bob Roche so long to have his theodolite set up on the wharf. As Bob explained the theodolite tended to walk across the wharf, or tip into the harbour, every time the wharf labourers bounced heavy loads from the ships on to the wharf with a thump!

Promotions:

Corporal Laughlin, I. to Acting Sergeant (O.R. Clerk) Corporal Gibbs, P. to Acting Sergeant (Q. Store) Corporals Cameron, K., Miller, J., Long, A.T., to Acting Sergeants (Surveyors)

SEPTEMBER, 1942

Personnel throughout the area were suffering the effects of malaria and dengue fever, plus other tropical illnesses which were causing the loss of many man-hours in all units. The hospitals were receiving many battle casualties and the medical services were under severe strain. An Order of the Day was issued by Lieutenant General S.F. Rowell, Commander of New Guinea Forces, laying down strict regulations regarding the taking of quinine, use of protective clothing, and mosquito net maintenance. Swimming was prohibited after 1800 hours.

Lieutenant O'Reilly visited the Port Moresby Lands Office and was able to locate a field book which had an astro fix of Kokoda obtained in 1941. This enabled a much better control of the information for mapping on the other side of the Owen Stanley Ranges.

During this period compilation on maps covering Kokoda to Myolo Lake, Kagi to Nauro, Port Moresby Provisional and Buna (South-East) 2 mile Strat Series were completed and reproduction of the maps by the Z/lst Australian Army Topographic Survey Company at Toowoomba were returned to New Guinea in record time.

Warrant Officer Class 2 Len Heron, with Sergeants Miller and Cameron, Corporals Murray and Roche, Sappers Smale and Verey, started field work to carry the triangulation control to the Uberi map area. Starting from Rouna Base Rospital one party traversed through to Ower's Corner, using Newman's Dump (a DID near ower's Corner) as their base. The other party, led by Len Heron, traversed the Subitana and Eilogo Roads. To save time they used long legs and the distance between the traverse stations was not measured by chaining but was computed, using the short base method. The small apex angle of the right angle triangles were observed using the repetition method with an accurate theodolite. The field parties

working through the jungle areas were having problems with the damp conditions causing wet clothes. After some days without dry clothes any scratches or cuts tended to become tropical ulcers, dermatitis would also develop and when they returned to 17 Mile some of the more serious cases had a spell in hospital. Some members of the party were on the track near Ower's Corner when the artillery opened fire on the Japanese position at Iorobaiwa Village. Corporal Murray was near the gun site when they started to fire and as he had no idea they were there, he nearly had a heart attack on the spot at the unexpected thunder of the guns.

The 14th Field Artillery had man-handled their guns into position near Ower's Corner and opened fire on the 29th September. The Australian advance had started and Kokoda was recaptured on 2nd November.

Another task undertaken at this time was the co-ordination of the Port Moresby anti-aircraft guns - azimuth lines and range points were established.

The party under Lieutenant Owers doing the Kokoda Road location work had all returned to 17 Mile Headquarters during the third week of September. Colonel Bleacmore CRE, advised Captain Herridge that the Kokoda Road location work should be continued and on the 26th September Lieutenant Owers and Corporal Evans returned to the Kokoda track.

Promotions:

Warrant Officer Class 2 Heron, L., to
Warrant Officer Class 1.
Sergeant Gillard, W., to Warrant Officer Class 2.
Sergeant McDonald, B., to Warrant Officer Class 2.
Acting Sergeant Long, A.T., to Sergeant

OCTOBER, 1942

Captain Herridge had discussions with Captain P. Kennedy and Brigadier Hopkins, GSO, NGF. It was decided that all future maps were to be compiled at 1 mile or 4 mile to the 1", also hill features, where heighting was difficult, were to be form-lined rather than hachured.

A surprise visitor during a Sunday morning stand-down was General Sir Thomas Blamey. During a long talk with Captain Herridge he enquired into the mapping programme, policy, and strength of the Unit. Two days later, Lieutenant Colonel L. Fitzgerald, Director of Survey, Advanced Land Headquarters (Saint Lucia, Brisbane), arrived at 17 Mile and discussed the Unit's progress with Captain Herridge.

Field parties moving through the Port Moresby area had base camps at Borebada, Papa and Boera Villages, which were in the Red Scar Bar area, northwest of Port Moresby. Some photographs were now available and the use of a one metre range-finder was of great help in the type of country where obtaining intersections for Indian Clinometer heighting was impossible.

A party led by Warrant Officer Class 1 Heron extended the triangulation control southeast from Tupeslei to Kapa Kapa, in preparation for the continued mapping down the coast.

Lieutenant Owers and Corporal Evans were still working on the Kokoda Road location.

Locality maps were completed covering the areas of Wanigela, Ioma, Lae to Buhem River, Kumusi River Valley from Sirorata to the Onalama Range. A map known as Wairopi at a scale of 1:60,000 was completed and was of great value to our troops as they advanced from Kokoda towards the Kumusi River, this advance took place during the first two weeks in November.

On the 29th October a party of reinforcements arrived from the mainland, Warrant Officer Class 1 Harry Beer was in charge of the party, which comprised the following men:

Corporal Edmends, H.
Sappers Brown, L.C.
Milnes, S.
Hann, R.E.
Murphy, J.F.L.
Cook, K.C.
Gill, J.

Runting, W.J.E. Dorrough, M.J. Beadell, L. Sutton, W.J. Gratton, R.A. Toms, W.K.

The tents erected for the newcomers did not have slit trenches alongside them, and the men did not seem very enthusiastic about digging them, however the night of their arrival we had a very close air-raid and early next morning they had all changed their minds and were at the 'Q' store drawing picks and shovels! The old hands stood watching and giving plenty of advice (not kindly received), but the new trenches were dug in quick time.

Sapper Ron Smale became ill, and after tests were carried out at the hospital, he was invalided out to the Greenslopes Hospital in Brisbane. He left Port Moresby on the Taroona on the 1st November.

Promotions:

Sapper Mansfield, R., to Lance Corporal (Transport), Sapper McHenry, H.E., to Lance Corporal (Cook), Sapper Powell, R.G., to Lance Corporal (Draughtsman),

NOVEMBER, 1942

A detachment of the 2/1st Aust Army Topo Survey Coy comprising one Field Section and one Draughting Section, a total of 4 Officers and 68 ORs arrived and established a camp further up the 17 Mile valley alongside the 2nd Aust Field Survey Section.

During November and December field parties under Lieutenant E. O'Reilly were based at Pari and Gaile villages carrying out annotation of aerial photographs, plane tabling and gathering all the necessary information to enable the Port Moresby and Tupeslei field sheets for the 1" series to be completed. The draughtsmen, at the same time, were able to complete sketch maps of Pongani, Buna-Gona area, Opi, Waira, MiaMia, Lae-Salamaua and the Markham River area.

Lieutenant G. Owers was detached from the Section and transferred to the CE Branch HQ, NGF, for duty.

Warrant Officer Harry Beer and Sapper Wes. Runting were joined by a further three ORs and carried out field work on the Uberi map, further control was required in the Koitaki to Owers Corner area.

Promotions:

Corporal Viccars, J.S., to Lance Sergeant.

Sapper A.D. Brown transferred from the 36th Battalion into the Section on the 19th November.

DECEMBER, 1942

On 2nd December Warrant Officer Wally Gillard with Corporals Murray and Roche and four Sappers were detailed to fly to Popondetta. Popondetta was about 15 miles from Buna and on the 28th November Lieutenant General Herring had established his advanced headquarters there to control operations.

The following is a description of the proposed move, as remembered by Corporal Brian Murray:

'Some weeks before Christmas 1942, seven of us were detached to fly to Popondetta. WO2 Wally Gillard was to liaise with AHQ, NGF, Cpl Hoche and I were each to lead a party of two Sappers.

Each morning we went down to Ward's Drome at 0500 hours, and waited to be loaded onto a Kai-bomber (DC3 Douglas). We waited and waited, each day the food and ammunition were loaded - but not us.

This happened every day for five days and the closest we got was when the American Pilots (to try and help) said they would split us up and put one in each aircraft, in addition to their normal load. The first plane loaded 'Chips' O'Brien, however the pilot

then had second thoughts and said "Sorry, I'd like to take you but I am going to have trouble getting off the ground as it is with this load." So Chips was off-loaded, the plane doors shut, and away went the plane. We returned to 17 Mile once again.

The movement was finally cancelled on the 17th November.'

Sapper A. Green was transferred to Angau on 11th December.

On the 12th December, Lieutenants Jack Cusack and George Campbell-Kennedy joined the Section and took command of Sub-sections No 1 and 2 respectively. Lieutenant E. O'Reilly, who had been working the Gaile area with the No 2 sub-section, left the unit and returned to Australia. After leave, he was posted to the 5th Aust Field Survey Company.

Lieutenant Campbell-Kennedy had the opportunity before leaving Australia to become familiar with the latest techniques in plotting from trimetrogon aerial photographs and was able to pass this information on to the Draughting Section.

No 2 sub-section was to work south-east down the coast from Port Moresby and were to eventually meet up with members of the No 3 section of the 3rd Aust Field Survey Coy who had arrived at Milne Bay during December 1942 under the command of Captain J. Middleton.

Lieutenant Colonel L. FitzGerald visited the Section Headquarters at 17 Mile, subsequently changes to the normal procedures regarding accuracy and detail were made to enable more speed with the output of maps. The size of all future 1" Series maps of Papua-New Guinea would cover an area of 20 minutes of longitude and 15 minutes of latitude.

On the 29th December Sergeant Jim Miller, Corporals Keith Barber and Bob Evans and Sapper Vince Victor were detached from the Section and joined Lieutenant G. Owers (now with the Engineers) and Private D. Larkin to form a composite party, whose task it was to carry out a compass and chain traverse across New Guinea. They were to start at Abau Island and Babauguinna Plantation, travel north across the Owen Stanley Range to Safia, to reconnoitre a proposed road.

Sergeant Jim Miller and Corporal Keith Barber remember the journey as follows:

'We embarked at Port Moresby on two copra luggers, captains and crew were all six footers from the Fly River area in the Gulf of Papua. As the luggers always carried a cargo of copra and cockroaches, we slept on deck for the two nights while travelling down the coast and arrived at Abau Island on the third day. Abau Island is situated in Cloudy Bay, near the mouth of the Babauguinna River.

The Island is about one and a half miles in circumference and has a small landing strip on the north coast. This allowed mail and provisions to be flown into the island by light aircraft.

A small jetty enabled us to land and climb up steps cut into the slope to the top of the hill, which was 200ft high. The following day we boarded a launch which was to tow native canoes carrying our 40 native carriers (who had been recruited from nearby coastal villages).

We spent that night at Babauguinna Plantation hossestead, then the next morning we had to cross the river on an overhead swing bridge. Ouring this manoeuvre Keith Barber's chainman managed to invert himself (including his rifle and pack) — it took us several minutes to extricate him. We were then told that crocodiles frequented this particular part of the river!

The carrier boys were lined up, carriers allocated and rations divided between the various parties. Lt Overs and Bob Evans were to traverse up to the Keveri Gap, a saddle in the Owen Stanley Ranges. Jim Miller and Vince Victor were to de the next leg, while Pte Larkin and Keith Barber were to leapfrog these two parties and do the final leg into Safia. Keith and Pte Larkin averaged about 20 miles a day and after three days they commenced their traverse. Having coastal boys made the task more difficult as they were not happy up in the mountains getting further from home each day. The single file track was little used and at times was difficult to locate and later as they descended the ranges it criss-crossed streams continually for two days.

They pushed on and completed their traverse to Safia. They had been told to traverse a track that led off due west from Safia - this took an additional two days, but it only circled around and returned on to their original traverse - about two hours walk from Safia:

At Safia a food dump had been especially set up for the use of any allied pilots who may have been shot up on a mission and could not make it back to base - they knew if they had to bail out in the area that the natives in the village would look after them and there would be plenty of supplies. They stayed for the day at Safia before starting their return journey.

Jim Miller and Vince Victor had also arrived in Safia for a brief stop before returning to Abau.

During the return trip Keith's only pair of boots fell to pieces and with the constant climbing and criss-crossing of streams his feet swelled to nearly twice their normal size. However they made it back to Babauguinna Plantation in good time and after plotting the traverses, plus a couple of days rest at Abau Island, his feet returned to their normal size.

The return trip to Port Moresby was uneventful and the party finally arrived back at HQ 17 Mile on the 9th February, 1943.

Sapper Sutton, W.J., transferred to the 2/3rd Infantry Batt. 28/12/42. Corporal B. Browne was promoted to Acting Sergeant (Q). Captain P. Gibbs took charge of the RAP.

Sapper G. Weier was promoted to Lance Corporal - he had claimed his brother Sapper T. Weier, who joined the unit from the 9th Battalion.

JANUARY, 1943

The Section was now re-named - we became the 8th Australian Field Survey Section, AIF. All personnel were allotted new Army numbers.

Warrant Officer Class 2 Bernie McDonald and Corporal Tom Hartley left the Section and reported to the Headquarters NGF for duty with the Aust Army Photo Interpretation Unit.

Ray Ball and Stan Verey returned from the lawarere area after completing field work for the Uberi sheet.

No 2 sub-section moved and set up a new camp near Tavai village close to the coast. The field work continued on the final stages of the Gaile 1" map.

with information for the draughtsmen at 17 Mile, Ted Long, Bruce Browne and Joe Gill started to walk to Headquarters; they walked to Tupuslai (about 20 kilometres), then were able to arrange a truck ride to 17 Mile, finally arriving after 14 hours of travel. Sergeant Long spent the next few days organising rations for two months to take to KapaKapa Village which was to be the next camp. He sailed from Port Moresby to KapaKapa on a small vessel called the Milton with a crew of six natives. They arrived on the 15th January and the supplies were all brought ashore and stored in a small hut near the village. The hut was later used for office and draughting work - it was originally the store for the plantation at Rigo (which was about 20 kilometres inland) and was now the Angau base for the area.

The No 2 sub-section was to proceed down the coast of Papua, moving inland to a distance of approximately 30 kilometres to cover the map areas. Inland the movement was by tracks which connected various villages and the time from one village to the next was always marked in terms of walking time in hours and the condition of the track. Movement along the coast was usually by native lakatoi or canoe. The section moved to KapaKapa late in January and on arrival was greeted by the mission teacher at the village. He was a Samoan native named Sepania and kindly offered the use of the village school, transferring his school activities to the church building for the time the sub-section were at the village. The school was a reasonable sized building on stumps about one metre above the ground with a small annexe at the rear of the main building. The main building was used for messing and sleeping arrangements while the annexe became the kitchen.

Lieutenant G. Campbell-Kennedy travelled to Port Moresby from Tavai with further field work of the Gaile 1" map. He returned to KapaKapa accompanied by Warrant Officer Class I Harry Beer.

Warrant Officer Class 2 Gillard and Sergeant Long had been working on resection control using the KapaKapa trig, as main control. Wally Gillard was then returned to Port Moresby and 17 Mile, where he joined No 1 subsection. Harry Beer then took over the establishment of control with Ted Long. Field parties were now annotating and heighting the available aerial photographs. No 1 subsection was nearing the end of field work in the Uberi 1" map area.

Sergeant Ralph Phillips, who had been in New Guinea since September 1940, first as a civilian, then with the Army from the call-up of civilians, was told to report to Captain Herridge. It was 2100 hours on the 29th January - Captain Herridge asked him if he could be ready to leave at 0330 on the 30th. He could, and was on a Catalina over the Pacific Ocean at daybreak! After leave in Australia, Sergeant Phillips attended a Camouflage School, then joined 1st Aust Corps HQ at Mareeba, Queensland,

PEBRUARY, 1943

A field party from No 1 sub-section worked on the placement of proposed oil tanks and pipe lines at Elevala in Fairfax Harbour, north of the Port Moresby wharf installations.

No 1 sub-section completed the Uberi 1" map and Lieutenant J. Cusack and 16 ORs were on standby for movement to Wau by air. The movement to Wau was cancelled ten days later - it was finally the 19th March when the sub-section flew into Wau.

Field work continued in the KapaKapa area, with parties moving further away from camp and staying in various locations for three or four days. Jack Viccars, Len Beadell and George Weier were assigned six natives from Angau at Rigo for carrying and guide work. They travelled inland to carry out field work on the western side of the Gaile 1" map. After eleven days they arrived back at the coast at the Tavai village, where a message was sent to KapaKapa to have transport supplied (it was about 16 kilometres from Tavai to KapaKapa). Sergeant Long set out from KapaKapa with a utility along the coastal 'road'. The 'road' was two wheel-tracks running through areas of kunai grass, scattered trees and jungle patches which were quite thick and rapidly becoming overgrown. About half way to the destination an unseen rock in the kunai grass stopped the utility in its tracks. Ted Long then walked to Tavai, informed the field party and they then organised two lakatois to transport the party and their gear back to KapaKapa. The following day Ted Long and Ted Weier returned to the utility and removed the radiator, bringing it back for repair. Some weeks later Sapper O. Mansfield (who transferred into the unit on the 28th February when claimed by his brother, Lance Corporal Mansfield) was sent to repair the utility and it was then returned to KapaKapa. While waiting for his return to Port Moresby Ossie Mansfield volunteered to fill in as a member of a field party when one of the surveyors became ill. Returning some days later after much walking and climbing hills, he vowed he would never leave his truck again!

During June, Ray and Ossie Mansfield attempted to drive a jeep to KapaKapa, then bring the Ford utility back to 17 Mile HQ. However the 'road' had deteriorated so much the jeep was unable to move along it, so they returned to HQ. It was then decided the utility should be transferred to Angau at Rigo, consequently in August, Ossie moved down to KapaKapa with the necessary spares to service the utility and turn it over to Angau. Thus ended the saga of the Ford utility.

The field parties were travelling by native lakatoi and lugger when engaged on coastal work as many areas had mangrove swamps right to the water's edge and it was not always possible to walk the beach. The problem with sea travel, when relying on wind power, was to have a wind blowing in the right direction - quite often a party would start out on a good sailing day when half way to their destination the wind would change, blow harder in the opposite direction and the party would finish up back at their starting point! A trip on a lugger was always an experience, especially when the trade winds blew up and heavy seas developed. To have the native captain of the lugger say to you 'Taubada, can you swim?' - you are a couple of miles off-shore and earlier a couple of the local shark population had passed the lugger - one's confidence tended to be a little low!

Later the No 2 sub-section were to have one of the Water Transport group launches put at their disposal - however, that also put them at the mercy of the launch 'captain' (who was either a Sergeant or Corporal). Often the launch was not where it should have been, then when it was available the engine seemed to fail to start for some time (usually long enough for the 'captain' to complete his trading with the local natives). It was quite noticeable that when our officers were travelling the engine never 'broke down'.

When an American arrived at KapaKapa, having successfully traversed the coastal track from Port Moresby, Lieutenant Campbell-Kennedy decided it was too good an opportunity to miss when he offered to take passengers back to Port Moresby in his jeep. Ted Long and Alex Lynch were given the task of returning to 17 Mile HQ with field notes and other information for the draughtsmen. The coastal road, however, lived up to its reputation and the jeep was bogged on three occasions before reaching Tupuslei they finally reached 17 Mile the following day at 1500 hours. It had taken 30 hours to travel 100 kilometres.

The advance party from the 3rd Aust Field Survey Coy arrived in Port Morasby with Major A. Kurrle as OC, one other officer and 24 ORs. The 17 Mile camp was now becoming a large concentration of survey personnel and field parties were spreading out to all areas of Papua-New Guinea.

Promotions:

Acting Sergeant Browne B.H. to Sergeant (OM).

MARCH, 1943

No 1 sub-section was employed in setting out the positions of wireless aerials for the CSO on Ward's Lookout. A contour survey was also carried out for the proposed extensions to the $2/5~\lambda GH$ at Eggy's Corner.

Sergeant Ken Cameron returned to Australia on leave and was then posted to the 5th Aust Field Survey Company.

On 13th March, an American Kittyhawk crashed into the sea about 100 metres offshore from KapaKapa. The village natives were organised with two canoes and two of the survey personnel to go out to the aeroplane. They were able to remove the pilot's body from the wreck, which was in about six feet of water. The Angau NCO at Rigo returned the body to Port Moresby.

No 1 sub-section, under the command of Lieutenant J. Cusack, flew to Wau on the 19th March.

The completion of the Gaile 1" map was taken over by the 2/6th Svy Bty RAA. 8th Section NCO Corporal Alan Brown was on loan to the 2/6th Svy Bty to instruct in plotting from aerial photographs.

Sergeant Viccars left KapaKapa by lugger, returning to 17 Mile HQ with completed field work for the HQ draughtsmen to compile.

On 24th March a field party of nine men - Warrant Officer Class 1 Harry Beer, Ted Long, Alex Lynch, Harold Day, Ray Powell, Mat Dorrough, Bob 'Junior' Brown, Len Beadell and Terry Wyhoon left KapaKapa by native lakatois to move to the Hula Village area. As the wind died, the native crews and the field party spent the best part of the day poling the lakatoi towards their destination. They reached Bonama village and stayed the night at the rest hut. The village Councillor advised them not to walk around at night - the previous night a crocodile had taken a boy.

The following day a good wind put the field party at the Hula village by midday.

The work to be carried out was to cover the Kemp Welch River and Hood Bay 1" maps. There were to be three two-men parties and one three-men party.

Half the group moved on to Karapuna village. An airforce officer, Pilot Officer Stephenson, was in charge of an emergency airfield about three kilometres from the village and he suggested they would be more comfortable at the airfield - it had tents, stretchers and electric light available (the lighting facilities being to help with emergency night landings).

Ray Powell and Bob Brown went off on a traverse that was to take three days, however unexpected problems delayed them and it was five days before they returned to the base camp.

Promotions:

Acting Corporal Browne J.L. to Corporal Acting Corporal Pearson N. to Corporal

APRIL, 1943

On 1st April the field party at the airfield had retired in preparation for an early start to meet up with the rest of the party at Bula village. Suddenly, at 2300 hours, all lights at the airfield went on, accompanied by a terrific roar as a low flying American Flying Fortress circled the field, landed in teeming rain, then became bogged at the end of the strip. Port Moresby airfields had an air-raid alert and the Fortress had to find another landing area. The crew all climbed out of the aircraft and settled down for the night. The following day local natives helped with digging out the aircraft's wheels, and as the strip had become firmer the Fortress was able to take off and return to Port Moresby.

On 2nd April the field parties had gathered at Hula village and with good winds prevailing were able to return to KapaKapa by nightfall.

Captain Herridge arrived at KapaKapa by lugger on the evening of 6th April, accompanied by Jack Viccars and Bob Hann, who were returning to the sub-section from 17 Mile. During the next two or three days Captain Herridge and Lieutenant Campbell-Kennedy carried out inspections of the mapping area and discussed the progress of the work programme. Captain Herridge returned to 17 Mile HQ and on the 21st April handed over the command of the 8th Aust Field Survey Section to Lieutenant E.M. Beach. He returned to Australia on leave and was then posted to the 2nd Aust Field Survey Company.

On 6th April the No 2 sub-section had another aircraft episode! At about 1200 hours a low flying Wirraway was sighted about 200 metres out to sea and about seven metres above the water. That evening about 2000 hours there was a commotion on the beach, then two Australian Air Force officers appeared at the door of the hut. It appeared the Wirraway engine decided to stop when they were about 16 kilometres nearer to Port Moresby they finished up in the water, about 2.5 metres deep, close to the village of Tavai. The Tavai villagers knew we were camped at KapaKapa also that a wireless station was near us, so brought the aircrew back to KapaKapa. A message was sent to Port Moresby by wireless and the following day an Air Force crash launch came down and took the crew back to Port Moresby.

On 12th April Port Moresby experienced a 100 plane raid, on 14th April Milne Bay was also raided by about 100 planes, consequently for those days the skies between Milne Bay and Port Moresby were very busy with fighters passing overhead. These were probably about the last of the Japanese attempts at large formation raids.

The field work on the Kemp Welch River and Hood Bay 1" maps was almost completed. The last of the work was to be carried out by a field party led by Sergeant Ted Long. He left KapaKapa on 20th April, accompanied by Alex Lynch, George Weier and Vince Victor, travelling by truck through Rigo towards Kokobagu Plantation. The truck became bogged about five kilometres past Saroa, the party then had to walk the last 16 kilometres to the Plantation, which was the HQ for Lieutenant Nicholson, the Angau officer in charge of the area.

Lieutenant Nicholson was able to supply native carriers for one party, so Alex Lynch and Vince Victor left on a trip that was to take five days.

Ted Long and George Weier carried out trig control and heighting around the plantation area but were held up for one day when 157 points of rain fell, causing the Kemp Welch River to rise several feet. They travelled north through Saroakai to Gobaragere Plantation (near the junction of the Musgrave and Kemp Welch Rivers) then returned to Kokobagera through Kapogere and Boregere villages.

A message from Lieutenant Campbell-Kennedy was delivered by Lieutenant Nicholson of Angau, informing Sergeant Long to return to KapaKapa as soon as he had finished the work, also that the sub-section would be changing camp to Marshall Lagoon.

Alex Lynch and Vince Victor arrived back and at 0900 hours the next morning the party left Kokobagu Plantation arriving back at KapaKapa late on the same afternoon (27th April) only to find that the No 2 sub-section (with the exception of Sapper Ossie Mansfield) had left by lugger during the morning.

Sapper Mansfield had been left with instructions for Sergeant Long with regard to work to be carried out by his party on their way to Marshall Lagoon.

A Water Transport launch on its way to Port Moresby picked up Vince Victor and Ossie Mansfield who were to return to 17 Mile HQ.

The inlet to Marshall Lagoon was called McFarland Harbour. After sailing up the harbour for about three kilometres the lugger rounded a headland and the large lagoon (approximately 5.5 kilometres by 2.5 kilometres) opened out with the villages of Waiori and Wanigela built on stilts in the water, each about 300 metres offshore.

On top of the headland at the entrance to Marshall Lagoon the Seventh Day Adventists had established a Mission. It had been left in the care of some of their native mission staff until the time the missionaries could return. The sub-section were able to use the facilities at the Mission - the main house being a two-storey building with a large mosquito-proofed verandah on the first floor which was ideal for office work and draughting. The OC was able to have a room on the first floor. The kitchen and mess-room were on the ground floor.

A smaller single storey house was the sleeping quarters for the ORs who were working in camp, also the field men when they were passing through.

Sapper Wes Runting returned to Port Moresby then after a few days at 17 Mile was flown to Wau to join No 1 sub-section.

MAY, 1943

Meanwhile, back at KapaKapa, Sergeant Long decided that, as transport had failed to arrive, the party would move by native lakatoi to Marshall

Lagoon. He reached an agreement with the KapaKapa natives to supply two lakatois and crews to transport them. During the trip they were to stop off at a couple of points to carry out control and annotation.

On the 6th May they left KapaKapa - the first stop was Kanalie near the village of Hula. After carrying out the trig work there they left Hula village and crossed Hood Bay on a very rough day, but finally arrived at Kaiapura late in the afternoon. The following day they sailed past Paramana Point and oventually arrived at the village of Pelagai.

Jack Viccars and Chips O'Brien were working in the Pelagai area at the time, having sailed down from Marshall Lagoon with Warrant Officer Class 1 Harry Beer. Harry had disembarked at a point half-way down the coast to head inland and establish a trig point at Tovali Hill.

The following day the whole group started to sail back from Pelagai to Korela Mission at Marshall Lagoon, however a heavy trade-wind blew up and the lakatois found it impossible to make any headway, then the boom broke on one of the lakatois about a mile from shore, so it was decided to return to Pelagai and try again when the weather improved. The following day the wind was blowing just as hard and the native crews were not very enthusiastic about sailing, so Sergeants Long and Viccars with Sapper Weier, decided to walk the beach to Marshall Lagoon - a distance of about 25 kilometres - they would then get a canoe from the village of Kelarakwa (at the mouth of the McFarland Harbour) to take them up to the Korela Mission.

Corporal Lynch and Sapper O'Brien would wait for good weather and return with the remainder of the gear as soon as possible. They arrived three days later - on the 19th May.

At 17 Mile HQ Sergeant R. Pauley transferred into the Section from the 2/1st Aust Army Topo Svy Coy, he would take charge of the computing.

Corporal Alan Brown, who had been working with the 2/6th Artillery Survey Battery, arrived back at HQ with three ORs from the 2/6th, having completed the field work on the Gaile 1" map.

The Nater Transport launch, AM3, was now at our disposal and arrived at Korela Mission with Captain E. Beach to inspect the sub-section and to gain an appreciation of the survey area. The following morning the launch left for Port Moresby with Corporals Nelson and Pearson on board. They were to join the No 1 sub-section at Wau.

The launch was back at Marshall Lagoon five days later, sailing the following morning for Abau and Domara. Captain Beach accompanied a party comprising Warrant Officer Class 1 Harry Beer, Corporals Day and Beadell, Sappers Skinner, Thomas, Kirby and O'Brien.

The field party was to start work on the Ahau 1" map.

From Korela Mission to Abau was approximately 50 kilometres so it was a surprise to have the launch return with the CO by nightfall, the trip must have rated as the fastest the launch carried out while working with the No 2 sub-section.

Promotions:

Sergeant Pauley, R.J. to Acting Warrant Officer Class 2. Sergeant Browne, B.H. to Staff Sergeant (QM). Sapper Weier to Lance Corporal.

JUNE, 1943

Colonel L. FitzGerald received the following communication during the first week of June:

Allied Land Forces Headquarters, Victoria Barracks, Melbourne.

1st June, 1943.

Dear FitzGerald,

During my recent visit to New Guinea, the excellent work which has been done by the Survey units in New Guinea generally was brought under my notice, both at HQ New Guinea Forces and the several other commands which I visited.

As this appreciation of survey work was mentioned on two or three occasions, I referred to it again at the CGS Conference last Friday and would like to mention it to you for the information of the personnel concerned.

Yours sincerely,

(sqd.) J. NORTHCOTT

P.S. May I also congratulate you on your promotion to Colonel.

J.N.

Col. L. FitzGerald, Director of Survey, 242 Kooyong Road, Toorak.'

Early on 1st June the launch left for Port Moresby with Captain Beach, Sergeant Long and Sapper Hann. Stopping overnight at KapaKapa the launch arrived in Port Moresby at 1200 hours the following day. After arranging transport the party arrived at 17 Mile HQ mid-afternoon. Sergeant Long and Sapper Hann organised supplies and with the always welcome mail, returned to Korela Mission at the end of the week.

The following day the launch set off again taking Corporal Lynch, Sappers Roberts, Weier and Dorrough to Amazon Bay which was on the Western side of the Urama and Millport Harbour Special 1" map.

A block of four map areas were to be used to compile two Specials. The position of the coastline in relation to the sheet boundaries made it preferable to use the southern half of Bailibo and the northern half of Table Bay on one 1" to 1 mile Special. The adjoining sheet would be compiled in the same way - they would then be known as the Bailibo - Tahle Bay and Urama - Millport Harbour Specials. This method enabled the coastline and inland for a distance of 15 to 25 kilometres to be mapped on two shoets instead of four.

The eastern side of the Urama - Millport Harbour map was on the longitude of $140^{\circ}40'$, and was to be the extent of No 2 sub-section's work. The adjoining map, Mullin's Harbour, was being compiled by No 3 Section, 3rd Aust Field Survey Coy working from Milne Bay.

The only men now left at Korela Mission were Lieutenant Campbell-Kennedy, Ted Long, Jack Viccars, Ray Powell, Joe Gill, Bob Brown and Bob Hann. They were carrying out compilation and office work. The remainder of the No 2 sub-section personnel were scattered over many miles of jungle and coastline.

Some of the equipment, field data and field sheets of Kemp Welch River, Marshall Lagoon and Oveau 1" maps were taken back to 17 Mile HQ by Lieutenant Campbell-Kennedy and Sergeant Long.

The work to be covered by No 2 sub-section was nearing completion and the field men were now working on the last of the map areas. When the launch returned to Korela Mission it brought back the last of the supplies that the sub-section was to need during their stay down the coast. They also had good news for Sappers G. Weier, D. Skinner and Bill Thomas. The three men had been in New Guinea since 1941 and Lieutenant Campbell-Kennedy told them they had been granted leave to Australia. Their problem now was to wait for transport back to Port Moresby, as the launch had to continue down the coast with field men. They had to wait and hope for another launch to pass Marshall Lagoon on its way to Port Moresby. It was a further six weeks before they were to reach Australia.

The launch was now involved in moving men up and down the coast between Abau, Magubu Plantation, Orangerie Bay and Amazon Bay.

On the 10th June Captain Beach and five ORs flew to Wau to join No 1 sub-section. Captain Beach was to act as Survey Liaison Officer between AD Survey, HQ NGF and Division HQ.

 $\ensuremath{\mathsf{HQs}}$ draughting personnel were compiling material received from Wau and Korela Mission.

Warrant Officer Class 2 Frank Shera, Sappers K. Giblin and V. Victor left for Australia on leave.

Promotions:

Lance Sergeant Viccars, J. to Acting Sergeant.

JULY, 1943

On 1st July the launch left Korala Mission with Sergeant Ted Long, travelled to Abau picking up Corporal Len Beadell and Sapper Ted Weier, then on to Magubu Plantation. Corporal Alex Lynch and Sapper Ted Weier then continued on to Port Glasgow to do further field work.

On the 12th July Warrant Officer Class 1 Harry Beer and Sergeant Long were engaged in taking observations on the island of Mailu, south of Amazon Bay. They saw a launch approaching from the direction of Magubu Plantation so, on completing their observations, they walked down to the beach from the hill on which they were working to meet the launch when it arrived. They were surprised and pleased to see some of the 3rd Aust Field Svy Coy men they had known in Victoria. Colin Middleton, Bob Drew and Lyn Willisdorf had been working up the coast from Milne Bay.

Having finished their observations, Harry Beer and Ted Long packed their gear and hitched a ride back to Magubu Plantation where they located their own launch.

It took two trips out to Juliade Island, about nine kilometres south-east of Port Glasgow, before the weather was good enough to carry out the necessary observations to fix the Island.

The launch spent the next few days visiting the various parts of the coast - Oni Oni village to pick up Alex Lynch and Ted Weier, then to Magubu Plantation for Corporal Harold Day and Chips O'Brien. The party had one more stop for observations at Grange Island, then sailed to Abau where they picked up Len Beadell and Leo Kirby. The field party was now complete and as all field work was complete they sailed back to Korala Mission to join the remainder of the No 2 sub-section.

Preparations were now made for the sub-section to return to 17 Mile HQ. On 23rd July the launch was loaded with as much equipment as possible, then the following morning left for Port Moresby with Lieutenant Campbell-Kennedy and five ORs.

The remaining men, eight in number, would have to wait for the return of the launch. The houses were cleaned and left as found and the men waited. The AM3 arrived back on the 30th July and was optimistically loaded with the remainder of the equipment, keeping only personal gear to carry aboard in the morning. The AM3 once again developed engine trouble, so again the feeling was that unless there was an Officer aboard the 'Engine' could not care whether it worked or not. It took a further two weeks to reach Port Moresby, even then the AM3 had to be towed by a larger craft, a ketch, AK60. They arrived at 17 Mile HQ on the 14th August, where the size of the Survey complex at 17 Mile was a surprise for the men who had not seen it for some months.

Promotions:

Corporal Roche, R.L. to Lance Sergeant

AUGUST/SEPTEMBER, 1943

When No 2 sub-section returned to 17 Mile HQ they became involved in checking and erecting new beacons, also compiling new maps with the HQ draughting section.

At this time the unit received information regarding a move back to Australia to join a new unit at Toowoomba.

Warrant Officer Class 1 Len Heron returned from Wau with the news that he had been selected for OCTU and was returning to Australia. After receiving his commission Lieutenant Heron was posted to the 3rd Aust Field Survey Coy, returning again to Wau.

On 27th August the OC, Captain E. Beach, returned from Wau and left for Australia on 24 days leave, but did not return to the 8th Aust Field Svy Sect. Also leaving for Australia on leave were Sappers Bob Brown and Bill Franklin. Warrant Officer Clas 2 Frank Shera, Lance Corporal G. Weier and two other ORs returned from leave and a period of infantry training and further technical training was taking place at 17 Mile.

On the 14th September an urgent project to produce two 1:25000 series maps, Satelberg and Langemak Bay, was given jointly to the 8th Aust Field Survey Sect, 3rd Aust Field Survey Coy and the 2/1st Aust Topo Survey Coy. These maps were to be used by the 9th Division troops as they advanced up the Huon Peninsular from Lae.

The 8th Section was to work on the Satelberg map and with Lieutenant Campbell-kennedy in charge of the compilation, the draughtsmen worked six hours on, six hours off, around the clock and the compilation was completed in 48 hours.

Lieutenant Campbell-Kennedy had just gone to sleep after the 48 hour shift when he was woken by Lieutenant Hall informing him the sheet edges did not match. The control for the area depended on just two points on the coast and the whole map hung on this control. One, an astro fix by a pre-war petroleum company and the other an army fix.

One of these points was the jetty at Finschhafen which was identified on the aerial photograph, however it was discovered, after many hours of checking by dieutenant Campbell-Kennedy and Major Lambert, that the original jetty had been replaced by a new structure built in a slightly different position.

Lieutenant Campbell-Kennedy was able to devise a distorted grid which enabled a new compilation to be drawn grid by grid. This was done in record time.

Within another 48 hours the maps had been reproduced and sent to the RAAF for delivery to the 9th Division forces in Lae.

The 9th Division landed at Scalett Beach, Finschhafen, on the 22nd September.

The Japanese airforce made one of their last trips to Port Moresby on the night of the 19th September. The only damage was to the fish, as they were chased away by anti-aircraft fire and dropped their bomb load into the water.

It was certainly a different raid to those of 12 months earlier.

At 17 Mile HQ the section received news that the No 1 sub-section had left Wau on the 30th September and were returning via the Bulldog Trail.

Sapper Wes Runting was transferred to LHQ Cartographic Coy at Bendigo. He left for Australia on the $28 \, \mathrm{th}$ September.

WAII

SUB-SECTION NO 1

MARCH-OCTOBER, 1943

During January 1943, elements of the Japanese Army had advanced from Salamaua to Wau and had arrived at the village of Wandumi. The village was about six kilometres east of Wau. From Wau to Salamaua, in a north-easterly direction, there were three main tracks, running as near parallel with each other as is possible in the type of country they traversed. The more northerly track was known as the Black Cat Track as it passed through the Black Cat Mine on its way to Mubo. About 10 kilometres south was another main track which in its early stages from Wau was a jeep road which ended at Ballam's Camp, the track continuing on to the Summit camp at about 7000 ft, then on to Skindewi and through to Mubo on the Bitoi River.

Running between these tracks was another which branched off the Black Cat Track about 13 kilometres from Mubo at a building called the House Copper. This track was a very mountainous and rugged one which did not pass through any other village until it reached Wandumi, a distance of 32 kilometres. It travelled through country which varied in height from 4000 ft to 7500 ft over a range of mountains known as the Kupper Range — this track was known as the 'Jap Track' as it was one of the main tracks used by the Japanese during their advance on Wau.

The Japanese were in a position to attack Wau when the 17th Brigade was flown into the Wau aerodrome on the 30th January, 1943. The troops were in action within minutes of leaving the aircraft. During the next week the Japanese forces in the area were defeated and forced to retreat towards the coast.

March, 1943

This was the situation when No l sub-section, under the command of Lieutenant J. Cusack, flew into Wau on the 19th March and came under the command of 'Kanga Force'.

No 1 sub-section comprised the following personnel:

Warrant Officer Class 1 Len Heron Warrant Officer Class 2 Wally Gillard Sergeants Jim Miller, Ian Townsend

Corporals Keith Barber, Bob Roche, Brian Murray, Alan Nelson Bob Evans, Alex Pulton

Sappers Ray Ball, Barry Kemp, Stan Verey, Ken Cooke, Hank Thoms, Wally Keenan, someone only remembered as 'Warwick', and the cook, Harry Edwards (who was on loan to the section from the catering corps)

Later reinforcements were Warrant Officer Ray Pauley, Corporal Alan Brown and Sappers John Murphy and Wes Runting.

The flight from Port Moresby was a very interesting and spectacular trip, mainly dense jungle with deep valleys and high ridges, sometimes with the trees just below the port wing and the valley falling away below the starboard wing. Eventually a clearing (which someone referred to as a cricket ground) came into view and as other Douglas aircraft were seen to be landing on the 'cricket pitch' it was decided that it must be the famous sloping aerodrome of Wau.

The aircraft came in low over the northern end of the drome, very close to the tree tops - although not as close as the wrecks of other planes indicated they had been!

The up hill strip meant a short landing run and as soon as the aircraft stopped moving the doors were opened, everybody quickly left the plane, gear and supplies were quickly off-loaded into a heap, the aircraft turned around and left immediately - any return loads were on without stopping the engines.

It was a real 'taxi rank' operation, with each plane taking off between incoming flights.

The No 1 sub-section was allocated one of the few remaining buildings that was intact in Wau. Fuller's Farm was the name of the house and it was situated about 1.8 kilometres southeast of Wau on the road leading to Bellam's Camp.

The hut was about $12m \times 7.5m$ with a gable roof. On the front elevation it had a verandah with a skillion roof, at the rear was another section of verandah with a skillion roof which was turned into the cookhouse. It had been built out of local timber and with a little work by the section handymen, part of the wall was able to be opened up for ventilation and light - it became as ideal for a draughting room and living area as one could expect in these circumstances.

No sconer had Survey taken possession of the house than a section of Signallers arrived, also allocated to the building, however it was a case of first in best dressed.

Captain T. Connelly joined the group as Staff Officer Survey. He and Lieutenant Cusack were summoned to Kanga Force HQ where the Brigadier discussed the priorities of work, also his concern that the Japanese may make another advance from the direction of Lae. He required a map of the area Wau - Bulolo to the Markham River and Nadzab area, in 48 hours.

There were some aerial photographs and track maps available, and a continuous effort was made by the personnel. The only height control available at this time was Wau and the Markham River at near sea level. Form lining of photographs was carried out from both ends of the run with continuous interpolation and a very satisfactory join-up was achieved. The map was finished and handed to the Brigadier in 36 hours.

Wau was still experiencing air-raids and soon after the sub-section was installed at Fuller's Farm they were involved in a raid. On this occasion Warwick manned the bren gun with Brian Murray as his No 2, on a second

occasion Keith Barber was on the gun when they were strafed. Fortunately no-one was hit although the unit latrine received quite a lot of attention which caused it to be severely damaged, however no-one was in residence at the time!

Lieutenant Cusack and Warrant Officer Heron, with field parties, were involved in obtaining trig control through the Wau - Bulolo Valley area and tying into a previous Astro Fix that had been carried out by Sergeant Robb of the 2/1st Coy. Surveyors in 8th Sect had not been instructed in the position line method of observation for latitude and longitude, commonly known as Astro Fix. This method of finding the observer's position on the ground was a technique practised by the British Survey units in the Middle East, and was introduced into the Australian Survey Corps by Colonel L. FitzGerald on his return to Australia, however the Eth Section had moved to New Guinea before they had the opportunity to receive instruction in this method. New Guinea was an area where this method of locating position was invaluable.

Pield parties were working through the Bulolo area to the junction of the Snake and Watut Rivers on the Bulowat East map, also the Wau to Kaisinik area.

One party, which included Ian Townsend, Bob Roche and Brian Murray started from Fuller's Farm to carry out track traverses towards Mubo. The chains being used at this time were lengths of signal wire with marks every 10 metres.

The road from Wau passed the Crystal Creek and ran for about 6.5 kms along the Bulolo River valley through kunai covered ridges until it reached Ballam's Camp, which was about 5500 ft above sea level and 2000 ft above Wau. From Ballam's Camp the track zigzagged for approx 9.5 kms to the Summit camp, a height of 6800 ft. The track was well into the wet jungle and the nights spent at the Summit camp were very cold.

The track then broke into two from Skindewi 3 to Skindewi, one track keeping along the ridge and down the spur to Skindewi at about 3500 ft while the other went around the side of the ridge and attempted to follow the contour. The distance from the Summit camp to Skindewi via Skindewi 3 was about 10 or 11 kms. From Skindewi the track meandered along the side of the ridge and followed the Busival River valley down to Mubo, a distance of about 25 kms. It was under these conditions that the surveyors were attempting to carry out traverses and control of the tracks and also to map the features of the country.

It was on one of these trips towards Mubo that Brian Murray and his companion were instructed to find an Independent Company's forward section and take copies of their track maps of the area. As they moved down the track his companion became ill and had to return to camp. Corporal Murray continued on to find the section. He was about to pass an infantryman who was on the side of the track, when the man asked him where he was going. Brian told him of his mission and was informed that he had already passed the turn-off to the Section about 100 yards back up the track. 'And anyway, there is a Japanese machine gun around the next bend, they shot my mate this morning.' Brian felt that the soldier's casual manner was a bit too much, but guickly took his advice, backtracked to where the Independent section was, picked up the information and headed back for Wau.

Field rations were carried, but at various main camps along the tracks meals were sometimes available if supplies had arrived. When units in wau required supplies the excuse for a shortage was 'All supplies are being sent forward', however when you were in the forward areas the excuse for the shortage was 'All supplies are at Wau'.

Sapper Barry Kemp, who had been with the Survey Company in Victoria from the early days of the War and had moved to New Guinea with the first group from Colac in 1942, transferred from No 1 sub-section in Wau to the 2/5th Aust Infantry Ballation on the 19th June, 1943. It was only a few weeks later that Barry was killed near Salamaua. His many friends in the 8th Section mourned his death.

Another traverse in the Wau area is recalled by Jim Miller:

'Stan Verey and myself were allocated to the "Jap Track". Our plan was as follows: The Survey would take five days and would commence at the Black Cat Mine, traverse through to Wandumi, then follow the Kupper Range and the route of the "Jap Track" till we reached "House Copper" and then return to the Black Cat Mine by way of the Black Cat Trail.

The method of traversing was by compass and a 30 metre length of field telephone wire and a hand held pocket clinometre.

At the Black Cat Mine we were briefed as to the location of booby traps on the Black Cat Trail for our return to the mine, this was a safeguard in case we failed to link up with a patrol that was to meet us at the House Copper on the fifth day after our departure.

We set off early in the morning with two local native boys, allocated to us by Angau to carry our food for the trip, and a guide from the 2/7th Independent Coy who was to take us through the booby traps located on the Jap Track close to Wandumi.

Having safely negotiated the traps, our guide left us and we commenced what was to be the most tortuous track I had ever been on and both Stan and I had a pretty torrid week up and down that range, no water on top of the range, with the track descending almost vertically 1500 to 2000 ft down to water, then ascending immediately to the top of the range again — in some places the Japanese had resorted to fixing ropes held by rock bolts as hand holds.

As the top of the range was mostly in moss forest and at 6000 to 7000 ft the nights were freezing cold, having only a one-man tent between us, plus half a blanket each and a ground sheet, we resorted to trying to keep a fire going at the mouth of the tent to keep warm. To make matters worse, the two natives deserted on the second day and took with them our food, so we were then forced to depend on our tins of field rations, and at a later stage, our emergency rations.

The retreating Japanese, many of them wounded, must have had a really hellish retreat, for we came upon many dead and decaying corpses, especially on the steep descents.

After the desertion of our native carriers we carried on towards House Copper as pre-arrangements had been made to link up with a patrol at that rendezvous on the fifth day and they would take us back up the booby trapped trail. However, due to the tortuous nature of the track and the difficulty of trying to run a survey of it, we were delayed, and naturally being a bit light on food we became a wee bit worried regarding the rendezvous time. On the sixth day we came upon the site of what had been an Australian ambush against the Japanese (with plenty of visible evidence) and from our briefing we knew we were not far from our objective. The happy note was that we found a half four-gallon tin of dehydrated potatoes and, believe me, both Stan and I considered it a gourmet meal.

Barly morning of the seventh day saw us at the House Copper but, as there was no evidence of the patrol, we decided to set off for the Black Cat Mine, bearing in mind that we still had the problem of the booby traps ahead of us.

From the briefing, we knew that the trail was still operational and we both had a fairly good description of what to look for in the way of recognisable features leading to the booby traps, plus the time/distance from the House Copper, but not being persons to take any unnecessary risks, half an hour before the known walking time of reaching the traps, Stan and I jumped into the water race (which ran beside the Trail) and for approximately four miles we plodded through the water against the flow and successfully avoided the traps.

We reached the mine about 6.30 pm much to the surprise and elation of the standing patrol which had searched for us on both the fifth and six days unsuccessfully, and concluded that we had been wiped off.

After resting up for a day at the Mine, we walked half way back to Wau where we picked up a jeep ride back to HQ. I do not know to this day what value they got out of that track survey because it was that steep going up and down that it was virtually impossible to measure the slope.'

During April the field parties were working through the Bulolo - Bulwa - Power House and Buhaining areas, on all tracks leading to the forward patrol areas.

Food was always in short supply as it had to be flown into Wau. Some forward troops were supplied by drops, in areas where it was possible to salvage most of the supplies. One problem was lack of variety, this was causing worries for the medical officers as serious health problems were becoming evident. At one stage a supply of orange juice, vegemite and other items became available, but then they ceased after two or three weeks. The Kanga Force commander, on one occasion, gave orders for the stray cattle in the Bulolo valley to be rounded up and butchered to supply fresh meat for the troops.

Another recollection by Jim Miller of a request for a special task:

'A request was received from the HQ of a section of the 2/1st Field Artillery (25 Pounders), who had featured so well during the Wau fighting, for a localised artillery sheet. This would enable them to be fully prepared if hostilities were resumed in the Wau area, and, of course, like everything else at that time, they wanted it "yesterday".

I was assigned to the task and after giving it some careful consideration, knowing that the time was very limited, I thought I could produce a sheet in a very short time using an experimental method I had devised and used once or twice, with fair results, in civil life, using a theodolite and a metre base range finder, both of these instruments being readily available:

I knew that Captain T. Connelly, assisted by some of the 3rd Coymen, had just completed some form of minor triangulation, hooking up Bulolo aerodrome with Wau, so we had some known points to start from. I further knew that the artillery had three banderoles (portable tripods complete with bunting and sighting targets) which had been placed in position for siting their guns - but these were not tied into any co-ordinated point on the map grid.

My plan was to establish the position of these three banderoles in relation to the minor triangulation grid, thence visit each banderole site and by using the theodolite to lay off angles, using one of the other banderoles as a referring object, the range finder to measure the distances, I would be able to very quickly survey in all or most of the prominent features in the required area. Heights could be established by using the vertical angle of the elevation or depression sighting to the ground level at the object and correcting the calculation for the height of the instrument.

All field operations were completed in one day - a very long day of something like 12 hours commencing at about 0500 hours - also all the prominent features in the required area had been surveyed and the three banderoles had been observed from three of the minor trig stations. Now all that had to be done was to compute the three banderole positions. Wally Gillard and his compiling team were already in possession of the field notes relative to the theodolite angles and range finder distances. They were set to produce the final sheet as soon as the co-ordinates of the banderoles were known, but here we ran into a bit of a snag. Although two of the banderole positions came in sweetly, the third would not tri-sect at all.

The observations were checked and re-checked, with no errors being found, and gloom descended over the whole section, naturally the thought was of the dreaded Collins Point situation. Suddenly, and unexpectedly, one member of the section (I cannot remember who) but he had not been a member of the field party, but working elsewhere and he recollected seeing some of the gunners moving a banderole from one position to another at about 0830 hours. A quick check established that this was about the time we were moving from the second last trig point to the last trig point. A hurried visit to the Artillery Unit at about 1130 hours that night established

that the banderole had been moved, the time of moving coincided with the time we were in transit prior to the last set of observations. We were able to re-compute the position of this banderole, making use of the angle into it observed from one of the other banderoles and correcting for the bearing and distance it had been moved (as supplied by the Artillery Unit). There was much elation when a satisfactory tri-section was obtained.

Wally Gillard's team was then able to go ahead and produce a very creditable map which turned out to be of amazing accuracy, or so the CO of the Artillery troop informed me after they had a field shoot using the map and hit a number of their targets first up.

It was a great team effort to produce the map in such a short time and was much appreciated by the 2/1st Field Artillery.'

During May 1943, the Wau 1" Series map area was being heighted and traversed by four field parties moving through the area. The Bulolo 1:25000 was sent to the 3rd Company at Port Moresby for drawing and reproduction.

Traversing on the southern portion of the Mt Missim sheet was also in progress.

In June 1943, field parties were working at Bulowat, Mt Missim, Patep IV and Bulolo 1:25000 series. An astro fix was obtained at Pilimung on the eastern side of the Mt Missim sheet.

Warrant Officer Class 1 Len Heron recalls the following journey to the Markham Valley, carried out in June 1943:

'The Lunaman Tree was a large distinct tree on Mt Lunaman at Lae, the co-ordinates of which were required for the photographic control of the Lae map sheet.

As Lae was in Japanese hands, the tree had to be fixed by intersection from existing artillery triangulation stations on the south side of the Markham River and I was given the task.

I was accompanied by Corporals Alan Nelson, Brian Murray and Sapper Ray Ball.

We went by jeep from Wau along the Bulolo Road until we reached Sunshine. From here we had to walk. To help with the carrying of our gear over the first part of the trip we were given four natives by Angau. I still have in my possession the requisition for the four natives for this work. As I recall it took us four days to walk into the operational area through the villages of Mumeng and Patep 2 as we made our way along the Wampit River valley. I had with me copies of the artillery charts showing the triangulation stations which I could use to intersect the Lunaman Tree. I can remember the name of only one of those trig stations, a bare hill called Mt Ngareneno opposite Nadzab.

At this place I was observing when a lone Zero flew right over the hill. There was no cover so we could only lay still in the kunai grass until the plane had gone and hope we had not been seen. According to Ray Ball, he remained laying in the grass while he booked for me, as he felt safer in that position. I was able to complete the observations without further incident. I was discouraged from occupying the triangulation station nearest to the operational front line by our troops, who were worried that our work might 'draw the crabs' to their positions.

However, sufficient observations were eventually completed to obtain a result so we were able to signal the co-ordinates back to Wau and head for home.

On this trip I carried an Owen gun, but I am thankful to say I did not fire a shot in anger, although there was one occasion when we came across signs of enemy patrol activity in the area.

The return trip to Wau was very uncomfortable due to heavy rain turning the track into mud thus making walking extremely difficult.'

On 10th June, 1943, Captain Beach and five ORs flew into Wau to join No 1 sub-section.

Captain Beach was to act as Survey Liaison Officer between AD Survey, $\mbox{\rm HQ}$ NGF and Division $\mbox{\rm HQ}_{\star}$

When Len Heron returned to Wau after his journey to the Markham Valley he was informed of his return to Australia to attend an OCTU.

He tells this story of the start of his trip:

'My movement back to Port Moresby was by an RAAF Anson which had arrived at the Wau strip and as there was room for a passenger, I was informed and put on the plane at very short notice. I enjoyed the flight across the ranges although my "official duties" were to assist in winding up the wheels of the aircraft after the take-off and then to keep an eye out for Zeros!

What might have happened if we had been attacked over those ranges does not bear thinking about!'

Warrant Officer Heron left the 8th Field Survey Section but did not return to that unit as after completing OCTU and being promoted to Lieutenant he was transferred to the 3rd Field Survey Coy, and sent to No 1 Section of that Company which was then situated at Wau.

In July 1943, 3rd Company had received the Bulowat and Mt Missim sheets for drawing. The 1:25000 maps Bulolo East and Bulolo West, also the Wau 1" Series sheet were reproduced.

In August a party lead by Lieutenant Cusack travelled to the Watut River Valley (Roamer 1" Series map) to carry out field work. The trip is reported by Warrant Officer Class 2 Wally Gillard:

'In August 1943, just before the fall of Salamaua, Lieutenant Cusack received instructions to form a party to observe an astro fix and mapping control in an area northwest of Bulolo on the Watut River. There were about ten Bth Section personnel in the party besides Lieutenant Cusack and myself. Jim Miller, Ian Townsend, Keith Barber and Bob Roche, I cannot recall any of the other men. We had a train of approx 25 native carriers to transport our equipment and stores.

It was to be a five day trek which would cross two 1" series maps - from the Wau map, across the Bulowat East map, onto the Roamer map, finishing near the northwest corner. From Wau we travelled northwest down the Bulolo River, to the junction of the Bulolo and Watut Rivers, carried on down the Watut River past Sunshine and the junction of the Snake River finally travelling north up the western side of the Roamer map still following the Watut River.

We passed the village of Marilinan and on to TsiliTsili. TsiliTsili was, at this time, a secret operation and the formation of a base there was being carried out as quickly and with as little fuss as possible, to keep it a secret from the Japanese who were still occupying Lae and the Markham Valley, only 40 kilometres away.

It was a hair-raising trip along a precipitous track, single file above the raging mountain stream. No trip for the faint-hearted, especially crossing the Watut River on a kunda bridge. We were perpetually wet through because of the mist - the drill was to keep one's dry clothes in the pack to sleep in at night and to change back into the same wet clothes for each day's walk. Mostly we had a dry camp at night as each village had a "House Kiap" especially for the Government officers and that is where the army men slept when passing through.

The proudest "boy" in the native train was the one who carried the "machine" (theodolite), next came the legs of the "machine" which were wrapped in hessian, then the extra ammunition for the LMG. It did not matter what the weight was, these were the head boys of the carrier line. So it went on down the pecking order - the last got the awkward loads, like biscuit tins. Somehow they made trusses of kunda (vine) or carried these awkward objects on their heads.

On the third day there was an apparent jack-up with the train. I never did find out why, quite possibly the carriers could have been under the impression they did not have to go the whole distance, that maybe another team would take over (I had encountered this sort of thing in Papua with my lacatoi trips from Rigo to Tupeslai) however Jim Miller, who had some knowledge of pidgin with a few well placed kicks, soon got the train moving again.

On the fifth day we emerged from the jungle trail onto a kunai plain. On a knoll above the plain an American machine gun post kept us under observation. As we passed through the saddle we came upon an airstrip under construction, it was a hive of activity. The American Airborne Engineers with their mini bulldozers, graders, rollers and jeeps, every machine scaled down to fit into a transport plane. We found out then that they were building a fighter strip to support an attack on Lae, however the name TsiliTsili was not mentioned.

There were Australian Infantry, American Construction Engineers and American Signals all camped in the area.

We were given an area where we set up camp in a grass hut and tentage, which was supplied.

Jim Miller took his party to survey the airstrip and surrounds, also to connect by traverse to the site of Lieutenant Cusack's astro fix, which was to be near the American Signal camp. Lieutenant Cusack found that the batteries so labourously carried from Bulolo were flat and could not be re-charged because the American voltage output from their generator was different from that necessary to re-charge our batteries. After some discussion the American Signals Sergeant agreed to let Lieutenant Cusack tune in for either the Melbourne or the Japanese time signal, when he came off his "sched" (that is, when he had finished contacting his own signals people). Eventually Lieutenant Cusack picked up the JJC (Japan) and was able to check his chronometer. The next problem was to fluke an open sky to observe the stars in the right position. I booked for Lieutenant Cusack and after two nights we were able to get the observations needed. Bob Roche and I carried out some resections and intersections that I needed for control on the aerial photographs which ran north to the Markham River.

Jim Miller reports that the main purpose of this trip was to establish a fix on Lae and Nadzab and produce an artillery sheet for the Lae landing and the Nadzab parachute drop. Astro Fixes were established at TsiliTsili aerodrome and tied into Len Heron's observation point on Mt Ngarenemo.

Lieutenant Cusack flew back to Wau with the results of the surveying and the astro fix, the remainder of the party began their five day trek back to Wau.

Toward the end of August one field party was operating in the Wampit River valley (which runs into the Markham River) starting on the northeast side of the Roamer 1" map, while a second party led by Sergeant Ian Townsend with Brian Murray, Stan Verey and one other OR traversed to the head-waters of the Snake River near the Wago Mission on the Wago 1" map.

In September, 1943, No 1 sub-section received the news they were to be relieved and return to Port Moresby. They would have to wait until a jeep convoy was available to transport the party out via the Bulldog Road.

While they were waiting for transport the unit was moved to Healey's farmhouse, which was a pleasant white painted weatherboard building on stilts (Queensland style). Under the house the area was used as a kitchen and mess room. While at Healey's farm the unit were able to enjoy good meals with quite a lot of variety as the property had a very good garden with all types of vegetables and well stocked pawpaw trees.

The rest from field work was enjoyed, but technical training was carried out each day.

Warrant Officer Class 2 Ray Pauley, who was in charge of computing, gave instruction in survey computations such as:

Latitude and Longitude from Bearing and Distance Latitude and Longitude from Co-ordinates Semigraphic resections Traverses Sun observations for azimuth Other allied work

It was the beginning of October when the movement order came through and the personnel set out on the journey from Wau to Bulldog, along the Bulldog Road passing through Edie Creek, a distance of about 110 kms. The road had been built by the Australian Engineers during 1943 as a back-up supply route for Wau and Bulolo. On the way down the road the unit passed members of the 3rd Company who were working their way to Wau. The road was a single track, only able to be traversed by four-wheel drive vehicles, as it passed along and over precipitous mountain ridges on its way down to Bulldog which was on the Lakekamu River. The river was a muddy stream with floating logs, moss covered trees, mosquitoes and, very likely, crocodiles.

The unit transferred to powered pontoon barges and, helped by the flow of the stream, reached the mouth of the river in quick time. The camp at the coast was at a village called Kukipi and Warrant Officer Class 2 Wally Gillard claims it was the most thickly populated mosquito area that he had been in during his time in New Guinea.

A small coastal steamer arrived and the unit boarded by being taken out over the sandbar in small boats, the surf was quite rough but they finally got on board without getting wet. They arrived back at 17 Mile HQ on the 7th October, 1943.

During the $6\frac{1}{2}$ months that No l sub-section spent in Wau and surrounding areas, they had carried out field work and compilations for about 10 map sheets, mainly 1:25000 series, and several special sheets for local work.

OCTOBER, 1943

Completed compilations of some areas were now ready for reproduction and those that were considered to be off the urgent list were to be sent to Australia for reproduction by the 6th Aust Army Topo Survey Coy at Toowomba. They were put into the care of Sergeant J. Viccars who left Port Moresby on the 3rd October for Toowoomba.

On the 7th October the 8th Section once again changed its name and became the No 2 Field Section of the 6th Aust Army Topo Survey Coy which was under the command of Major L. Lockwood.

No 1 sub-section returned to 17 Mile on the 7th October. They were in fairly good condition physically but their clothes were definitely unserviceable.

The Section was to return to Australia and it was only a matter of time before the orders came through - in the meantime they were receiving further training, both technical and military. A range shoot was organised at the Rigo Road range.

Soon after the successful assaults on Lae and Finschhafen a further letter of commendation was received by General Blamey from General MacArthur:

General Headquarters South West Pacific Area.

A.P.O. 500 19th October, 1943.

A.G. 330. 13 (19 Oct. 43) E.

Subject: Commendation.

To: Commander, Allied Land Forces, South West Pacific Forces.

- The performance of the 2/1st Australian Army Topographical Company, the 3rd Aust Field Survey Company and the 8th Australian Field Survey Section of the New Guinea Forces, assisted by a detachment of the 69th United States Engineer Topographic Coy, towards the production of maps, photomaps and hydrographic charts, is worthy of high commendation.
- 2. Great technical difficulties were surmounted in producing and distributing maps and photomaps, covering more than twelve thousand square miles, in time for operations, from combat type photography never before used in this theatre. Astronomic locations vital to the success of the other Allied mapping efforts were obtained under conditions of hardship and grave difficulties of transportation and, upon occasions, considerable risk.

 This untiring effort to provide the combat units with the maps needed, from the material at hand, reflects great credit upon the Officers and men of these organisations.

> For The Commander-in-Chief General D. MacArthur (sgd.) H.W. Allen. Lieut-Colonel A.G.O. Assistant Adjutant General.'

NOVEMBER, 1943

The establishment of the 6th Topo Company would not allow for the entire strength of the 8th Section to be attached and some of the personnel would be posted to other Units in Australia, after leave.

On 1st November fourteen of the Section left to return to Australia but it was not certain how many would remain with the Unit and meet again in Toowoomba.

Ian Laughlin and Bruce Browne were two of the Section posted to other Companies.

Military training continued until 1200 hours on the 3rd November when Lieutenant J. Cusack paraded the Section and informed them they were on 48 hours notice for movement to Australia.

Preparation and packing for movement began immediately. Sergeant Long was to be in charge of the unit equipment during the trip to Toowoomba. He was transported to Port Moresby and had the equipment aboard the SS Ratoomba by 2130 hours on the 4th November.

The Unit boarded the Katoomba at 0800 hours on the 5th November and the ship sailed during that morning.

It was sixteen months to the day from when the Victorian contingent had arrived in New Guinea to join the original New Guinea Survey Section.

The Section landed at Townsville late on the 7th November and entrained for Brisbane the following day, finally arriving at Toowoomba and joining the 6th Topo Company on 11th November.

After settling into the new unit and receiving an issue of new clothes they left to go south on leave.

JANUARY-JUNE, 1942

During the six months January to June 1942 the original New Guinea Survey Section was being formed and mapping was at that time restricted to local sketch maps and other assorted work as required by HQ New Guinea Force.

JULY, 1942-NOVEMBER, 1943

During the sixteen months of operations in New Guinea the Section was involved in the field work and compilation of the following maps:

1:63360 total 13 1:25000 total 12 · Locality and special maps of various scales

The average sick parade attendance during the time in New Guinea was approximately 14% per month, varying from the highest in April 1943 of 28%, to the lowest in July 1943 of 5%. The majority of the sick personnel spent some time in hospital.

total 22

NOMINAL ROLL

Nominal Roll of personnel who served with the New Guinea Survey Section, and the 8th Australian Field Survey Section, March 1942-November 1943.

March 1942	2		Transferred from Unit
P381	Lt.	O'Reilly, E.C.	
16 369	Lt.	Owers, G. NO	29.12.1942
19 201	Lt.	Davidson, C.B.	10.11.1942
		bavidson, C.B.	June 1942
P8	WOII	Krutli, O.C.	9.4.1942
P199	Sgt.	Phillips, R.O.	30.1.1943
PX62	Sgt.	Miller, J.A.G.	20,11,1343
Q25	Sgt.	Cameron, K.	21.3.1943
P262	Sgt.	Cahn, L.G.	6.7.1943
	Sgt.	Hodgkinson, A.G.S.	26.7.1942
0100921	Cpl.	Evans, R.C.	
PX159	Cpl.	Browne, J.L.	
PX1B5	Cpl.	Powell, R.G.	
QX41984	L/Cpl.		
P264			
P265	Spr.	McKenzie, G.R.	March 1942
P342	Spr.	Simmons, B.V.	
QX43143	Spr.	Tealby, F.	5.5.1942
QX41985	Spr.	Giblin, K.	
Ava1202	Spr.	Thomas, W.L.V.	
	Spr.	Kennan, W.	17.7.1943
QX55445	Spr.	Green, A.	11.12.1942
Synnagan	Spr.	Skinner, D.F.	
0X54139	Spr.	Hines, P.H.	27.7.1942
5x24174	Spr.	Victor, V.B.	
	Spr.	Lamberton, W.A.	22.6.1942
	Spr.	Harrison, K.	200 x 200 x 200 x 10
May 1942			
	Capt.	Herridge, J.K.C.	21.4.1943
VX116359	MOI	Heron, L.	13.11.1943
VX116364	MOII	Shera, F.	
VX116367	WOII	Gillard, W.A.	
VX116365	MOII	McDonald, B.	13.1,1943
TX12544	S/Sgt.	Browne, B.H.	322027 00000
VX132004	Sgt.	Townsend, I.	
VX116368	Sgt.	Long, A.T.	
VX116360	Sgt.	Laughlin, I.	
VX116361	Sgt.	Viccars, J.S.	
3753777	~2	*200015, U.S.	

May 1942 (Contd.)		Transferred from Unit
VX116366	L/Sgt.	Roche, R.L.	
VX131826	Cpl.	Nelson, A.B.	
SX30890	Cpl.	Hartley, T.	13.1.1943
VX116180	Cpl.	Day, H.	15.1.1543
VX116181	Cpl.	Lynch, A.G.	
VP6873	Cpl.	Barber, K.	
VX131700	Cpl.	Fulton, A.	
VX135520	Cpl.	Gibbs, P.	3
VX116324	Cpl.	Murray, B.	
VX135503	Cpl.	Pearson, N.	
V12292	L/Cpl.	McHenry, H.E.	
VX132040	L/Cpl.	Mansfield, R.	
VX116123	L/Cpl.	Verey, F.W.S.	
VX110657	Spr.	Kemp, B.W.	19.6.1943
V143547	Spr.	Ball, R.	
V11910	Spr.	Franklin, W.E.	
VX116369	Spr.	Wyhoon, T.	
V151263	Spr.	Bogie, R.	
VX143790	Spr.	Kirby, L.	
VX124340	Spr.	Roberts, P.	
VX116182	Spr.	Smale, R.	30.10.1942
VX116363	Spr.	O'Brien, P.S.J.	
S1245	Spr.	Scott, S.	
V151044	Spr.	Davies, A.P.	
October 19	42		
VX136415	WOI	Beer, H.E.C.	
NX118575	Cpl.	Edmonds, H.	
N99858	Spr.	Brown, L.C.	
N21263	Spr.	Milnes, S.	
NX48523	Spr.	Hann, R.E.	
VX100761	Spr.	Murphy, J.F.L.	
N281355	Spr.	Cooke, K.C.	
N242789	Spr.	Gill, J.	
VX101380	Spr.	Runting, W.J.E.	
NX155809	Spr.	Dorrough, M.J.	
N273839	Spr.	Sutton, W.J.	28.12.1942
VX112353	Spr.	Gratton, R.A.	
NX118586	Spr.	Toms, W.K.	
NX134865	L/Cpl.	Beadell, L.	

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TRANSPERS INTO UNIT

N185842	Spr.	Brown, A.D.	19.11.1942
QX51591	Spr.	Weier, E.	12.12.1942
NX131990	Lt.	Cusack, E.J.	12.12.1942
SX25064	Lt.	Campbell-Kennedy, G.H.	12.12.1942
VX132040	Spr.	Mansfield, O.P.	28.2.1943
NX56660	Capt.	Beach, E.M.	21.4.1943
SX9694	WOII	Pauley, R.J.	8.5.1943
QX31123	Spr.	Wright, J.M.	
NX119090	Spr.	Punch, S.	



Len Beadell

LEN BEADELL

Inland roadbuilder was last explorer

Bushman and surveyor Born: April 21, 1923 Died: May 12, 1995

LEN Beadell, the bushman who helped build 6000km of roads across some of Australia's harshest country, has died in Adelaide at 72.

Mr Beadell, "last of the true explorers", opened up huge areas with roads through the Northern Territory and South Australia, and across the Gibson, Great Sandy and Great Victoria deserts in the 1950s and 1960s.

After serving in New Guinea in World War II, Mr Beadell returned with the Army Survey Corps and began work at the Woomera rocket ranges in 1947.

He surveyed atomic testing state at Emu and Marallinga before dedicating the next 20 years to exploring and roadmaking across the continent, working for the Department of Supply.

Later he worked as a guide for a tour operator in Central Australia, covering many of the roads he built years earlier.

He wrote six books about his experiences, including Too Long in The Bush, Blast The Bush and The End of an Era.

In 1989 Mr Beadell was awarded the Order of Australia for public services and services to literature. He also received an Advance Australia Award and a British Empire Medal.

He was buried at Gawler in South Australia on May 17

AN OUTLINE OF THE

MEMBERS OF THE NEW GUINEA SURVEY SECTION

(Later known as 8 Field Survey Section A.I.F.)

These biographical notes are based on unit nominal rolls and information provided by former members of the unit.

In all, 82 officers and men are known to have served in the unit. They came from Papua, New Guinea and from every State in the Commonwealth.

The ranks shown are the last known ranks held in the unit. In a few instances, service numbers are not known.

Some 50 officers and men could not be traced, and information about them would be particularly welcomed.

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VX 143547 SPR RAYMOND BALL. Born in Melbourne on 7.6.24. Educated at Warrnambool Technical College and Ballarat School of Mines. Preenlistment, engineering and survey draftsman, MMBW. One of the Colac volunteers. Mount Ball, near Uberi (Papua) is named after him. Fostwar, MSE(London) and AASE. Held senior engineering, surveying and drafting appointments in Australia, New Zealand, Papua, Nauru, United Kingdom and West Africa. Presently, a civil engineering consultant in Adelaide, South Australia.

VP 6873 CPL KEITH JAMES BARBER. Born at Queenscliff, Victoria, 18.2.22. Educated at Queenscliff and Gorden Institute of Technology, Geelong, Victoria. Enlisted in Permanent Military Forces (RAE) on 7.3.40. One of the Colac volunteers. Remained in the army postwar and retired 31.7.74 a Warrant Officer - and a Corps legend - after nearly 35 years service. One of his current interests is the Fort Queenscliff War Museum; Keith is living at Queenscliff.

NX 5660 CAPT J.E.M. BEACH. Joined unit and replaced Capt John Herridge as OC on 21.4.43. Returned from Wau 27.8.43 for 24 days home leave. Did not rejoin unit, which was to become part of 6th Topo Svy Coy. Later history unknown.

NX 134865 L/CPL LEN BEADELL. Born in West Pennant Hills, N.S.W., on 21.4.23. Educated at Sydney Grammar. Employed in Sydney Water Board Survey Branch before enlisting in December 1941. Served with 2nd Field Survey Coy before joining unit in New Guinea as reinforcement on 29.10.42. Postwar, accompanied CSIRO expedition to Arnhem Land, N.T., and later survey work at Woomera Rocket Range. Subsequently became Central Australian Surveyor, road builder, explorer and author.

VX 136415 WOI H.E.C. (HARRY) BEER. Brought 13 reinforcements to unit on 29.10.42. Details of Harry's c.v. and subsequent history are not available. Deceased.

V 151263 SPR ROBERT BOGIE. One of the Colac volunteers. Could not be traced when unit history was being prepared.

N 185242 SPR A.D. BROWN. Joined unit as reinforcement 19.11.42. Could not be traced when unit history was being prepared.

N 99858 SPR L.C. BROWN. Joined unit as reinforcement 29.10.42. Could not be traced when unit history was being prepared.

TX 12544 S/SGT BRUCE BROWNE. Born in Hobart, Tasmania, on 3.5.23. Educated at Claremont, Tasmania, and Hobart Technical College. Junior salesman before enlistment. One of the Colac volunteers. After unit disbanded, served with 2/1st Topo Svy Coy. Returned to retail trade after the war.

PX 159 CPL JOHN BROWNE. Believed to have been an architect in Sydney, N.S.W., before going to Papua some time before Japan entered the war. One of the original NG survey section. Postwar, an architect with North Sydney Council for many years. Deceased.

P 262 SGT LESLIE CAHN. An architect from Victoria, went to Port Moresby in 1940, and was one of the survey section formed there in March 1943. Returned to Australia 20.7.42 to join an engineer unit. Deceased.

Q25 SGT KENNETH CAMERON. Born in Lismore, N.S.W., on 11.3.05. Educated at Beechmont, Queensland, Nerang, Queensland and Southport, Queensland. Accountant and Works Manager before entlistment. Joined NG Survey Section from 49th Battalion 7.3.42. Left unit 21.3.43 on leave, then reposted to 5 Pd Svy Coy. Postwar, took Commerce and Law degrees and became Crown Prosecutor. Now living in retirement in Herston, Queensland.

SX 25064 LT GEORGE CAMPBELL-KENNEDY. Born in Millicent, South Australia 21.1.18. Educated at Kadina, South Australia, and Adelaide High School. A survey cadet prior to enlistment. Joined unit in New Guinea 12.12.42 as reinforcement lieutenant and took command of No 2 Sub Section. Postwar, served with South Australia Department of Lands, becoming Surveyor General (1969-1978).

N 281355 SPR K.C. COOKE. Joined unit as reinforcement 29.10.42. Could not be traced when unit history was being prepared.

NX 131900 LT E.J. (JACK) CUSACK. Joined unit 12.12.42 and took command of No 1 Section. Shared with Cpl Murray and Spr Ball the distinction of having a mountain in the Uberi area named after him (Cusack's Twin Peaks and nearby Mt Murray and Mt Ball).

LT C.B. DAVIDSON. One of the original NG Survey Section. Invalided out in June 1942 with blackwater fever. Could not be traced when unit history was being prepared.

V 151044 SPR A.P. (JOE) DAVIES. One of the Colar volunteers. Could not be traced when the unit history was being prepared.

VX 116180 CPL HAROLD THOMAS DAY. Born in Melbourne on 6.9.21. Educated at Bendigo and Scotch College, Melbourne. Student before enlistment. One of the Colac volunteers. Postwar, graduated MB, BS. General practitioner in Geelong, Victoria and Maroochydore, Queensland, for many years, then Community Health Service. Now retired in Coolum Beach, Oueensland.

NX 159809 SPR M.J. (MATT) DORROUGH. Joined unit as reinforcement 29.10.42. Could not be traced when unit history was being prepared.

NX 112575 CPL H. EDMONDS. Joined unit as reinforcement 29,10.42. Could not be traced when unit history was being prepared.

Q 100921 CPL ROBERT CHARLES EVANS. Born Kingaroy, Queensland, on 9.2.22. Educated at Shorncliffe, Brisbane. Prewar, Draftsman with Brisbane City Council. Postwar, real estate salesman, prawn fisherman, oil company surveyor, builder (Beenleigh, Queensland). Died 7.2.84. Bob's sister married L/Cpl Stan Verey.

V 11910 SPR WILLIAM FRANKLIN. One of the Colac volunteers. Could not be traced when unit history was being prepared.

VX 131700 CPL ALEX PULTON. One of the Colac volunteers. Details of his c.v. were not available when this unit list was being prepared.

VX 135520 SGT PHILIP GIBBS. Born in Maryborough, Victoria, 14.2.14. Educated at Maryborough, then joined Victoria Railways. One of the original Colac volunteers. Postwar, farmed for 30 years at Majorca, Victoria, before becoming a businessman in Dalby, Queensland, and Toowoomba, Queensland.

QX 43143 SPR KEVIN GIBLIN. One of the Queensland infantrymen who joined the unit on 7.3.42. Could not be traced when the unit history was being prepared.

N 242789 SPR JOB GILL. Joined unit as reinforcement 29.10.42. Could not be traced when the unit history was being prepared.

VX 116367 WOII WALTER ALFRED GILLARD. Born in Swan Hill, Victoria, on 12.11.12. Educated Swan Hill. Before enlistment, junior teacher, then managed parents' farm at Piangit, Victoria, before opening small business in East Malvern, Victoria. One of the Colac volunteers. Postwar, remained with Survey Corps, leaving in 1965 as Captain (Acting) to become Senior Draftsman with Tasmanian Lands Department. Presently living in retirement in Lindisfarne, Tasmania.

VX 112353 SPR R.A. GRATTON. Joined unit as reinforcement 29.10.42. Could not be traced when this unit history was being prepared.

SPR ATHOL GREEN. One of the twelve who joined the unit on 7.3.42 from 49 Bn and NGF Training Centre. Transferred to 2/3 Bn 28.12.42. Could not be traced when the unit history was being prepared.

NX 48523 SPR R.E. (BOB) HANN. Joined unit as reinforcement 29.10.43. Could not be traced when this unit history was being prepared.

SPR KEN HARRISON. One of the twelve transferred to the unit from 49 Bn and NGF Training Centre on 7.3.42. Could not be traced when this unit history was being prepared.

SX 30890 CPL TOM HARTLEY. One of the Colar volunteers. Left unit 13.1.43 to join Aust Army Photo Interpretation Unit. Could not be traced when the unit history was being prepared.

VX 116359 WOI L.C. (LEN) HERON. Born at Hawthorn, Victoria, on 13.4.19. Educated at Swinbourne Technical College and RMIT. Part-time student in surveying. Articled pupil in surveying before enlistment. One of the Colac volunteers. Left unit in Wau when selected for OCTU subsequently commissioned and joined 3rd Field Survey Coy. Postwar, qualified as Licensed Surveyor in 1947. Joined State Electricity Commission of Victoria. Was Principal Surveyor of Commission's Distribution Department on retirement. Now living at Dromana, Victoria.

WX CAPT J.K.C. (JOHN) HERRIDGE. Following service in the Middle East, took the Colac volunteers to New Guinea as OC, NG Survey Section. Left unit on 21.4.43. Further details of his c.v. were not available when the unit history was being prepared.

SPR P.H. HINES. One of the twelve transferred to the unit from 49 Bn and NGF Training Centre on 7.3.42. Could not be traced when the unit history was being prepared.

SGT GERRY HODGKINSON. One of the twelve transferred to the unit from 49 Bn and NGF Training Centre on 7.3.42. Transferred to Queensland L of C on 26.7.42. Could not be traced when unit history was being prepared.

VX 110657 SPR BARRY KEMP. One of the Colac volunteers. While in Wau with No 1 sub section, transferred to 2/5 Bn 19.6.43. Died of wounds shortly afterwards.

SPR WALLY KEENAN. One of the twelve who joined the unit on 7.3.42 from 49 Bn and NGF Training Centre. Returned to Australia 17.7.43. Could not be traced when unit history was being prepared.

P8 WOII OTTO KRUTLI. A surveyor, and one of the original NG Survey Section, he was born in Europe, possibly in Hungary. Returned to Australia 9.4.42. Further details of his c.v. were not known when the unit history was being prepared.

VX 143790 SPR LEO KIRBY. One of the Colac volunteers. Could not be traced when unit history was being prepared.

SPR W.A. LAMBERTON. One of the twelve transferred to the unit from 49 Bn and NGP Training Centre on 7.3.42. Transferred to $30 \cdot Bn$ 22.6.42. Could not be traced when unit history was being prepared.

VX 116360 SGT IAN LAUGHLIN. Born in Kerang, Victoria, on 20.6.23. Educated at Kerang. Clerk and shop assistant before enlistment. One of the original Colac volunteers. Postwar, returned to Kerang, married his boyhood sweetheart and opened a sporting goods store.

VX 116368 SGT ALAN (TED) LONG. Born in Melbourne 4.11.21. Educated Belmont Primary and Geelong High. Pupil surveyor before enlistment. Postwar, joined Garlick and Stewart, consulting engineers and land surveyors. In 1979 became a partner, and retired in 1987 as a Director in the company.

VX 116181 CPI, ALEX LYNCH. One of the Colac volunteers. Postwar, director of a building and structural engineering company. Now lives in Toorak, Victoria.

VX 116365 WOII BERNIE McDONALD. One of the Colac volunteers. Left unit 13.1.43 to join Aust Army Photo Interpretation Unit. Could not be traced when unit history was being prepared.

V 12292 L/CPL H.B. (MAC) McHENRY. A Great War veteran from Woodend, Victoria, and a sometime shearer's cook. One of the Colac volunteers. Mac must have been well over the maximum age for active service when he arrived in New Guinea. Mac's subsequent history is not known.

PX 92 GORDON McKENZIE. Born at Randwick, N.S.W., on 23.12.20. Educated at Daceyville and Sydney Technical College. Four years' articles with Sydney architect before joining Commonwealth Works Department in Port Moresby in 1941. One of the original NG Survey Section. Later transferred to Angau. Postwar, private practise as architect in Port Moresby and Sydney. Prior to retirement, Chief Architect, Department of Main Roads, FRAIA, AILA, ASTC, DipLD(UNSW). Now living in Woy Woy, N.S.W.

VX 137966 SPR O.P. (OSSIE) MANSPIELD. Born in Kyneton, Victoria, on 15.2.19. Educated at Sedgwick, via Bendigo, Victoria. Worked on farms, orchards, in sawmills and as a truckdriver before enlistment. Joined unit on 28.2.43 after being 'claimed' by his brother. Postwar, Ossie worked as an owner-driver general carrier, including log hauling and general trucking for 40 years. He now lives in Brisbane, Queensland.

L/CPL RAY MANSFIELD. One of the Colac volunteers. Details of his c.v. and subsequent history were not available when these notes were being prepared. Ray 'claimed' his brother Ossie (see above). Deceased.

PX 62 SGT JAMES MILLER. Born in Melbourne, Victoria, 5.8.13. Educated in Sydney and Melbourne. Attended Sydney University before joining Australian Petroleum Co as surveyor on oil exploration in Papua and New Guinea. One of the original NG Survey Section. Returned to New Guinea postwar as Chief Surveyor for APC. Later, held senior civil aviation appointments in New Guinea and Australia. Now living in retirement in Sydney, N.S.W.

B 21263 SPR S. MILNES. Joined unit as reinforcement on 29.10.42. Could not be traced for unit history.

VX 100761 SPR J.P.L. (JOHN) MURPHY. Joined unit as reinforcement on 29.10.42. Believed to have come from Ballarat, Victoria. Could not be traced for unit history.

VX 116124 CPL BRIAN MURRAY. Born in Hobart, Tasmania, on 27.12.22. Educated at Kyneton, Victoria. Pre-enlistment, public servant (AHQ). One of the Colac volunteers. Mount Murray near Uberi (Papua) is named after him. Later enlisted in RAAF aircrew. Postwar, MCom(Melb). Labour market and industrial market research before working on first Australia-Japan Trade Agreement. Senior immigration appointments in Australia, Britain and Scandinevia. Presently a Canberra consultant.

VX 131526 CPL ALAN NELSON. Born Melbourne 8.9.22. Educated State School, Essendon High School, RMIT. One of the Colac volunteers. AMF-AIF 1948-56 Malaya. Architect's practice, G.D. pilot, RAF (Comm) Far East, MAF-Malaya and Far East. 1956-59 Architect's practice and commercial photographer, Queensland - University of Queensland and University of Melbourne. 1960-79 M.D. Roy Grounds and Co., Victorian Arts Centre, designer, Hobart Casino. 1965-79 Architect of the restoration of the Shrine of Remembrance, Melbourne. 1971-80 Zoological Board, Melbourne. June 1977 OBE for outstanding service to architecture and in particular, the planning of the Victorian Arts Centre. June 1979 retired. Farming. Hon Arch Shrine. Professional photographer and the arts. OBE, FRAIA, AFAIM.

VX 116361 SPR P.S.J. (CHIPS) O'BRIEN. One of the older Colac volunteers, Chips successfully concealed the loss of one eye at at least three Army medical examinations: when he originally enlisted for home defence, when he volunteered for New Guinea, and when he was accepted for the AIF. He survived the war and when last heard of, was living in a country town in north-west Victoria.

P 381 LT EUGENE O'REILLY. A government surveyor, he was transferred from GDD, NGF on 2.3.42 and promoted Lt as OG, New Guinea Survey Section, on 11.3.42. Returned to Australia on leave 29.12.43, after which he was posted to 5 Field Survey Co.

NGX 369 LT N. (GERRY) OWERS. Born in Inverell, NSW, on 12.4.07. Pre-war, licensed surveyor in Wau, New Guinea. Served with NGVR in Kanga Force before joining New Guinea Survey Section (foregoing based on official history, 'South-West Pacific Area Pirst Year', p56n). Ower's Corner on the Kokoda Trail is named after him. Left unit 10.11.42 but led some of its later field parties, eg the ABAU-SAPIA operations.

VX 135503 CPL NBIL (WINGY) PEARSON. Born in Melbourne on 12.7.23. Educated in Albert Park, Victoria. Pre-war, a commercial artist and draftsman (three years). One of the Colac volunteers. Postwar, a freelance commercial artist until joining SEC, Victoria, on survey drafting and illustrating for 19 years before taking up a senior survey drafting position with MMBW from 1969 to 1983. Now retired and living in Warrandyte, Victoria.

SX 9694 WOII RAY PAULEY. Joined unit 8.5.43 from 2/lst Aust Army Topo Svy Coy. Could not be traced for this unit history.

P 199 SGT RALPH PHILLIPS. Born in Sydney, NSW, on 1.3.08. Educated at North Sydney and University of Sydney. Architect in Port Moresby before enlistment. One of the original NG Survey Section. Postwar, became Professor of Architecture, Sydney.

PX 185 CPL RAY POWELL. An architect, and one of the original NG Survey Section. Details of his c.v. were not available at the time these unit biographical notes were being prepared, but Ray is presently living in Cremorne, NSW.

NX 119090 SPR S. PUNCH. Shown on nominal roll as having transferred into the unit but no further information is available about him. A young New South Welshman about eighteen years old joined No 1 sub section at Wau with 'Warwick' (who was probably Sapper J.M. Wright, q.v.) and this may well have been Sapper Punch. If so, he did one field trip on the Mubo Track with Cpl Murray but had to return to Wau when he became ill, and may have been evacuated. No further information on him is available.

VX 124340 SPR PETER ROBERTS. One of the Colac volunteers. Peter's c.v. was not available when these biographical notes were being prepared.

VX 116306 L/SGT ROBERT ROCHE. Born Portland, Victoria, in 1916. Surveyor and engineer pre-war. Rejected as medically unfit for AIF and joined CMF. One of the original Colac volunteers. After several months in New Guinea, accepted as medically fit to enlist in AIF. Postwar, became Shire Engineer and Building Surveyor before entering private practice. Bob now lives in Bendigo.

VX 101381 SPR W.J.E. (WES) RUNTING. Joined unit as reinforcement 29.10.42. Wes now lives in Croydon, Victoria, but details of his c.v. were not available when these biographical notes were being prepared.

S 1245 SPR STEWART (SCOTT) SCOTT. One of the Colac volunteers. Transferred out medically unfit several months after unit arrived in New Guinea. Scotty's subsequent history is not known.

VX 116364 WOII FRANK SHERA. One of the Colac volunteers. Details of his c.v. are not available. Deceased.

P 265 SPR B.V. (VINCE) SIMMONS. A clerk, was one of the original NG Survey Section. Vince's subsequent history is not known.

QX 55445 SPR DES SKINNER. One of the twelve transferred to the unit from 49 Bn and NG Training Centre on 7.3.42. Des' subsequent history is not known.

VX 116182 SPR RON SMALE. One of the Colar volunteers. Medical evacuation from Port Moresby on 30.10.42. Never fully recovered, and died 18.1.50 while still in his mid twenties. His widow, Jean, lives at Maryborough, Victoria.

N 273839 SPR W.J. SUTTON. Joined unit as reinforcement 29.10.42. Details of his subsequent history are not available.

P 342 SPR F. TEALBY. One of the original NG Survey Section. Left unit 5.5.42. His subsequent history is not known.

QX 41985 SPR WILLIAM THOMAS. One of the Queensland infantrymen who joined the unit on 7.3.42. His subsequent history is not known.

 $NX\ 118586\ SPR\ W.K.\ (HANK)\ TOMS.$ Joined unit as reinforcement 29.10.42. His subsequent history is not known.

VX 132004 SGT IAN TOWNSEND. Born Melbourne on 29.9.22. Educated at Middle Park and Wesley College, Victoria. Pre-war, short term articled surveyor. One of the Colac volunteers. Postwar, graduated MB, BS, Melbourne University. Practised in Essendon and Abbotsford before moving to Gold Coast, Queensland, private practice twenty years ago. Presently living at Coolangatta, Queensland.

VX 116123 L/CPL STAN VEREY. Born in Daylesford, Victoria on 30.11.22. Educated at Daylesford and Ballarat Grammar. One of the Colac volunteers. With Cpl Brian Murray did unit's last field trip from Wau through Upper Snake Valley to 'Jap Track' between Lae and Salamaua. Postwar, returned to Daylesford and became fourth generation Funeral Director in family firm (st 1882). Married to sister of Cpl R.C. (Bob) Evans.

VX 116361 SGT JACK STEWART VICCARS. Born Geelong 7.11.22. Started work in an architect's office and studied architecture for three years before joining the AHQ Cartographic Coy on 25.3.41. Transferred to the 3rd Field Survey Coy during May 1941. Served in New Guinea with the 8th Australian Field Survey Section, AIF, from July 1942 to October 1943. The 8th Aust Field Survey Section became No 2 Field Section of the 6th Aust Army Topographical Svy Coy and after 15 months in Queensland, returned with the 6th Aust Army Topo Svy Coy to Lae on 2.4.45. He was discharged on 9.10.45, returned to civil life and joined his father in his building construction company. He joined the 2 Topographical Survey Coy CMF during 1951, received his commission on 16.6.52 and served until 27.1.60. He retired from building construction in 1985 and now lives with his wife, Mayis, at McCrae, Victoria.

QX 54139 SPR VINCE VICTOR. One of the twelve transferred to the unit from 49 Bn and NGF Training Centre on 7.3.42. When last heard of, some months before the war ended, Vince was on Balipapin. His subsequent history is not known.

QX 41084 L/CPL GEORGE WEIER. Born in Caboolture, Queensland on 27.7.18. Educated at Morayfield, Queensland. Farmer pre-war. One of the Queensland infantrymen who joined the original NG Survey Section on 7.3.42. Claimed his younger brother, Ted, who joined the unit on 12.12.42. Postwar, sharefarmed in the Macalister district of the Darling Downs before buying the property. Continued farming until his death on 11.9.83. George's wife, Linda, now lives in Dalby, Queensland.

QX 51591 SPR E. (TED) WEIER. Born 27.3.20. Educated at Morayfield, Queensland. Pre-war, pineapple and dairy farming on his parents' farm. Claimed by his brother, George, and joined unit on 12.12.42 from 8 Bn. Postwar, returned to farming. Now farms 2,400 acres, all grain. Has lived on the same property at Macalister, near Dalby, for 40 years.

QX 31123 SPR J.M. WRIGHT. Almost certainly the 'Warwick' mentioned in the unit history, so named after his hometown of Warwick, Queensland. Somewhat older than most of the unit, probably in his early thirties at the time. 'Warwick' joined the unit in New Guinea as a reinforcement, probably early in 1943. His subsequent history is not known.

VX 116369 SPR TERRY WYHOON. One of the Colac volunteers, 'Typhoon' was one of the youngest members of the unit, several of whom were reputed to be only 17 - and one reinforcement 16 - when they arrived in New Guinea. Details of his c.v. and his subsequent history are not known.

* * * * * * * *

A medical footnote

Information provided by former members of the unit indicates that:

- * B5 per cent of the field men suffered from malaria
- * 70 per cent of the unit suffered from dengue fever
- * more than 60 per cent suffered from tropical ulcers, and
- * about 60 per cent suffered from dysentry.

Tropical ringworm and other skin diseases were almost universal.

Official sickness rates understate the true incidence of malaría, etc, since away from HQ there was no way of reporting sick - and no point in trying to.

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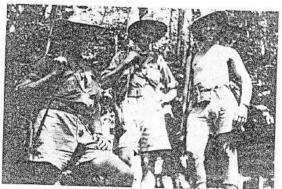
Corrections and/or additions to these entries, and particularly information concerning those who could not be traced for the unit history, should be sent to:

G.P.O. Box 141, Canberra. A.C.T. 2601.



Nauro Village 11th August, 1942 on Kokoda Trail

Neal Pearson Ray Ball



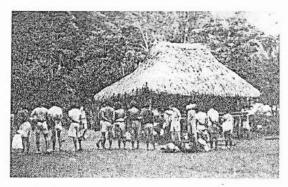
Poot of Golden Stairs between Uberi Village and Ioribaiwa Village, 16th August, 1942, on Kokoda Trail

George Weier Des Skinner Bill Thomas

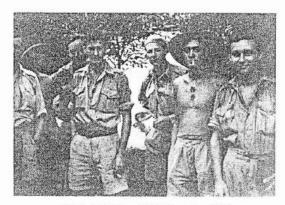


Nauro Village, 17th August, 1942 on Kokoda Trail

Ian Townsend Bill Thomas Neil Pearson

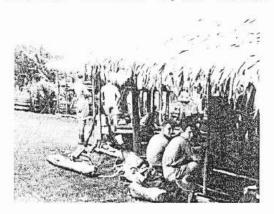


Carrier Boys at Uberi Village, August 1942 Start of Kokoda Trail



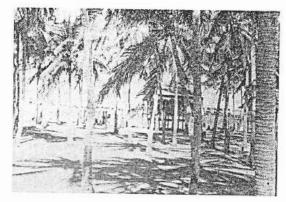
Uberi Village, 15th August, 1942

Peter Roberts George Weier Des Skinner Ray Ball Bob Evans Neil Pearson

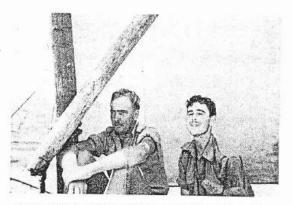


Uberi Village, 16th August, 1942

Front: Neil Pearson Ian Townsend Back: Harold Day Peter Roberts



Kapa Kapa Village, February 1943



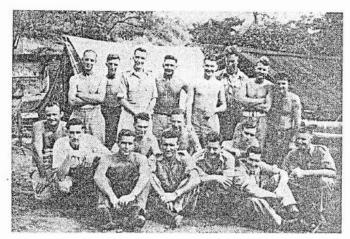
George Weier and Leo Kirby on route to Kapa Kapa



HQ 17 Mile, Port Moresby

Back Row: Athol Greene, Wally Gillard, Alan Nelson, Ian Townsend, Leo Kirby, Bob Bogie

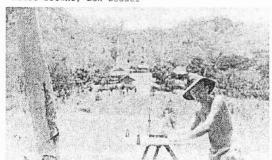
Front Row: Alec Fulton, Stewart Scott, Barry Kemp



BQ 17 Mile, Port Moresby, December, 1942

Standing: Bill Franklin, Peter Roberts, Phil Gibbs, Bob Bogie, Ian Laughlin, Ted Weier, Ray Ball, Bluey Milnes

Sitting: Harry Beer, Leo Kirby, Matt Dorrough, Mac McHenry, Joe Davies, Ted Long, Jack Viccars, Neil Pearson, Bruce Browne, Len Beadel



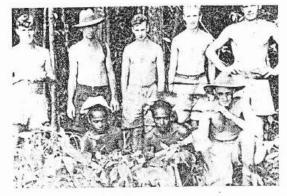
Port Moresby Area

Alex Lynch



Port Moresby Area

Ray Ball Bill Thomas Bob Evans Bob Roche



Port Moresby Area

Vince Victor Ken Cooke Stan Verey Ted Long Athol Greene Des Skinner



Port Moresby Area Red Scar Bay

Jack Viccars Alan Nelson Keith Barber



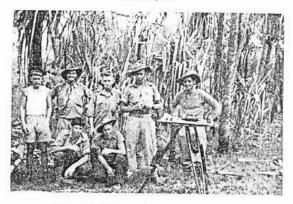
Port Moresby Area Lunch

George Weier Jim Millar Des Skinner



Port Moresby Area Plane Tabling

Alex Lynch

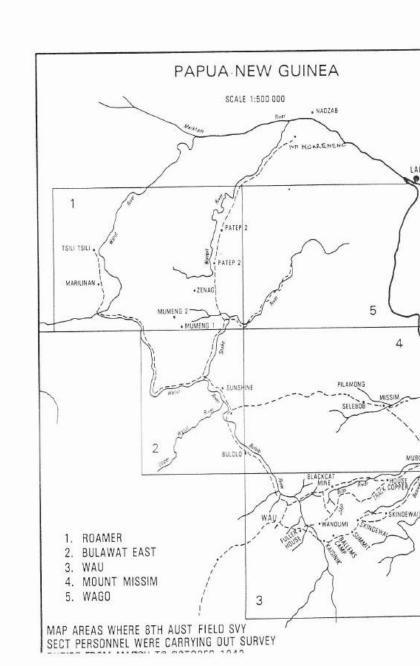


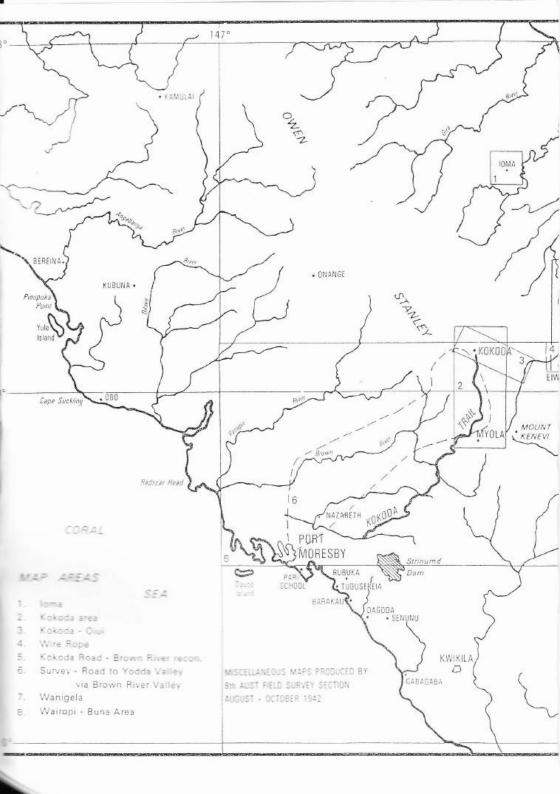
Plane Tabling and Photo Annotation Port Moresby Area

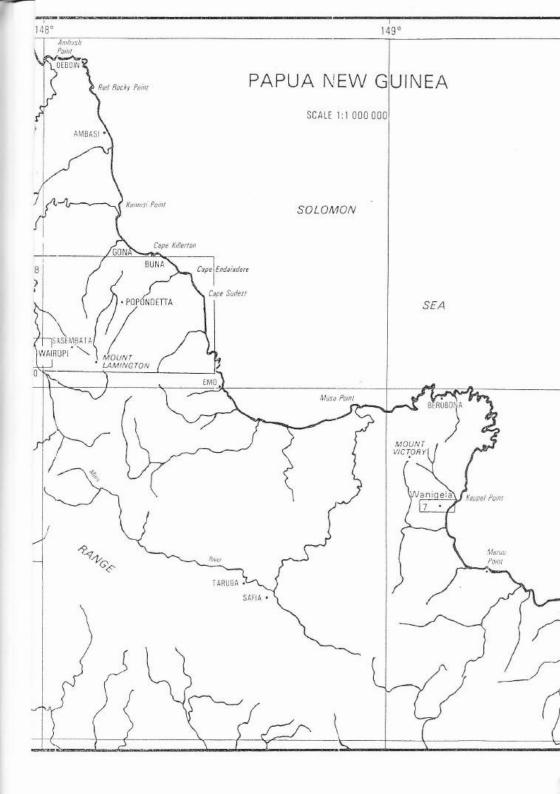
Back Row: Les Brown, Wally Gillard, Harold Day, George Weier, Jack Viccars Front Row: Wes Runting, Harry Wyhoon, Roy Gratton

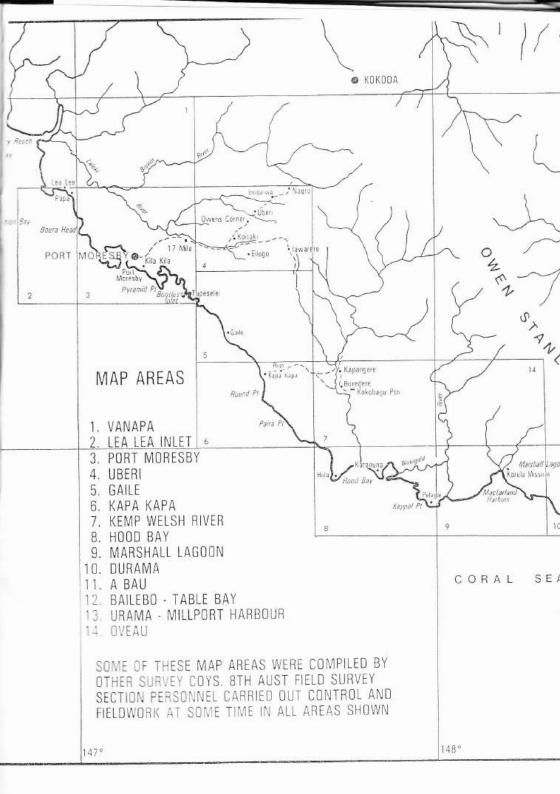


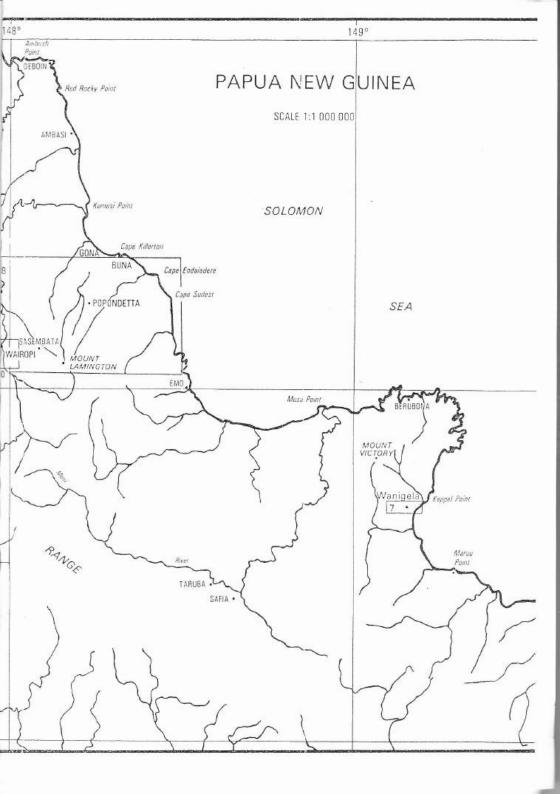
Whori Wan Bear











Remembrance Ceremony at

The Carriers' Memorial
By

The New Guinea Survey Section (8th Field Survey Section A.I.F)



Canberra Services Club, Manuka A.C.T 10.00 am Thursday, 3 August 1995



Order of Ceremony

10.00 am Wreath-laying party, members of the New Guinea Survey Section, next-of-kin and guests assemble beside the Carriers' Memorial at the Canberra Services Club, Manuka A.C.T.

The Address

Yesterday, we met at the Tomb of the Unknown Australian Soldier to pay tribute to our comrades in the old New Guinea Survey Section.

Today, we stand beside the poignant statue of a young Papuan, one of the 'Fuzzy Wuzzy angels', leading a wounded Digger to safety.

The Anzacs had Simpson and his donkey. We had 'The Carriers'.

None of us who saw the stretcher cases on the Kokoda will ever forget the carriers who bore them to safety.

None of us who served in forward areas will ever forget the kai lines that sustained us.

None of us who served away from the mainforce areas will ever forget the carriers who went with us or the villagers who unfailingly gave us their support.

We saw, first hand, their contribution to the allied victory in the South West Pacific.

We, and all Australians, owe them a debt of honour which can never be repaid.

Today, at our unit's first reunion for 52 years, we acknowledge that debt.

Wreath-laying The Ode

From Laurence Binyon's 'For the Fallen'

They shall grow not old, as we who are left grow old;
Age shall not weary them, nor the years condemn,
At the going down of the sun and in the morning
We will remember them.

The response

We will remember them

The Last Post
(one minute silence)
The Rouse

This concludes the ceremony and the wreath-laying party, members of the unit, next-of-kin and guests leave.

