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JUNE NEWS LETTER 2012

ANZAC DAY 2012

Sydney turned on a glorious autumn day for the 2012 ANZAC Day March, coupled with the huge crowds that lined the route of the march it made it a special day of remembrance for all those involved.

As in past years members from the Geomatic Wing of SME volunteered to carry the banner and the two senior members of the association took place of honour in front of the Survey Corps Association Banner.

In total there were 14 personnel from the Survey Association and 13 from the Geomatic Wing of the SME marching on the day.

After the march the members of the New South Wales Association held their annual general meeting under the Morton Bay fig trees near the Red Cross refreshment tent in Hyde Park.

As usual there was a rush by members to fill the position.

The current President Treasurer and Secretary Richard Jackson-Hope was re-elected to fill all positions for the next twelve months.

He then thanked the members of Geomatic wing for their great turn out and for carrying the banner during the march and thanked the association members for their attendance.

He expressed the association appreciation to WO1 Josh Andrews for arranging the banner party for the march and his assistance prior to ANZAC Day.

He then gave the treasurers report for the past twelve months.

At the conclusion of the treasures report he said the association has 30 paid up members and at the present time 40 news letters were posted out prior to ANZAC Day.

Members who attended:

Phil Bannister, Bernie Cain, Bob Campbell, Frank Fischer, Frank Gould, Rob Hunter, Richard Jackson-Hope, John Lymbery, Peter Raue, John Siddons, Peter Tierney, Terry Topham, Andrew Wardle.

Apologies Bruce Williams and Noel Ticehurst



WW2 members John Lymbery and Frank Gould



Phil Bannister and Frank Fischer



Banner Party from Left to Right

Spr Loc Tran, Spr Mitchell Kosch, Spr Marcus Miller, Spr Joanna Armstrong, Spr Mathew Bohan, Spr Bradley Smart, Spr John Mudie.



Rear Sgt Andrew Hebden (RAE), Cpl Joel Hare (RASIGS) Centre WO2 Paul Hunter (RAE) Cpl Kenny Plant (RAE), Front Sgt Steven Smelt (RAE)



Lining up at Corner of Hunter & Bligh Street Sydney



March came to a grinding halt in Hunter Street



Andrew Wardle Peter Tierney Bob Campbell Rob Hunter



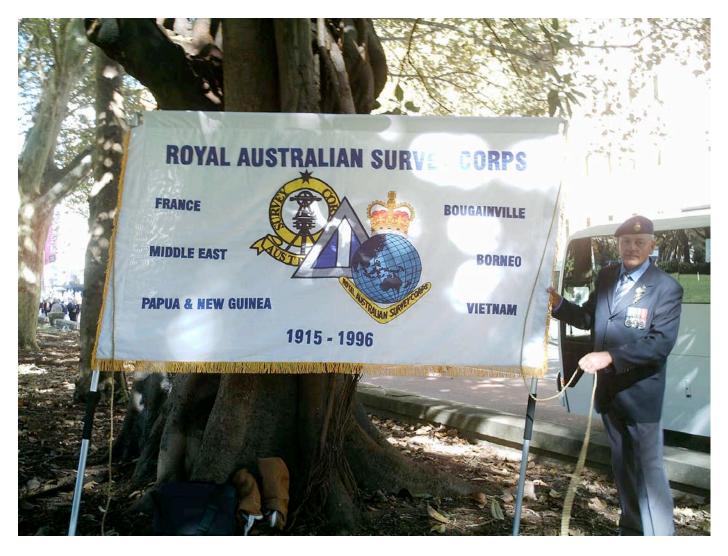
Frank Gould John Lymbery



Peter Raue Phil Bannister Bernie Cain



Richard Jackson-Hope Frank Gould



Frank Fischer with the Survey Corps Association banner after the 2012 ANZAC Day march

Museum News

Peter Raue advised the members at the AGM that the museum would be moving in about two year. Information about the move will be published as details come to hand.

A reminder about access to the museum;

Due to the new security protocols regarding access to the site, all visits are by appointment only. Members are required to have either a current driver's licence or valid passport as proof of identity this is important as these are the only two accepted forms of ID.

When there is a scheduled appointment the curator will arrange to meet the visitors at the Pass Office located at the rear gate of Holsworthy Barracks.

The curator will arrange for passes to be issued, visitors are then escorted for the duration of the visit.

Curator contact details

Sebastian Spencer Australian Army Museum of Military Engineering Steele Barracks

Moorebank Ave, Moorebank NSW 2174

Tel: 02 8782 4385 Mob: 0417 121 999 Fax: 02 8782 4799

Email sebastian.spencer@defence.gov.au



John Lymbery and his Lancia Fulvia Sports 1.3. Manufactured in 1968 in Italy.

It has an aluminium alloy body and was hand built by Zagate. The engine is 1.3lt 4 valves with OHC and fitted with 2 twin choke Solex carburetors. It has 4 wheel Duplex disk brakes with a four speed manual transmission with front wheel drive. There were only 709 of these cars manufactured John has owned the vehicle for 43 years and it looks like it has just come out of the showroom.

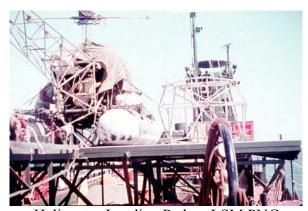
In the March 2012 ANZAC day newsletter there were photographs of the Fly River area in PNG taken during RA Survey operations in 1962 a few more photographs have been included in this newsletter. The photographs in the March 2012ANZAC Day newsletter and the photograph in the May 2012 newsletter highlights the difficulties faced by Survey Corps surveyors and the early explorers in gaining access to the interior of PNG.



Fly River Area PNG



Landing Approach to LSM Fly River PNG



Helicopter Landing Pad on LSM PNG



Arrested natives from the Strickland River area PNG

PAPUA NEW GUINEA EXPLORATIONS NORTH WEST PATROL 1926-1928 The North-West Patrol Remapped Part 2 Before I go on with Part 2 of this article I must explain how I came to be remapping the two routes taken by the North-West Patrol in 1926-27 and 1927-28. About four to five years ago I was asked if I would care to join a breakfast group on Sunday mornings. Eric Johns, a retired school teacher who spent many years teaching in Papua New Guinea is a fellow participant at these breakfasts. As Eric waded through his research and writings I became entranced with his extraordinary stories of Papua New Guinea. Eric had to postpone his history writing while he co-wrote "Social Science Outcomes" with Trevor Tindall for GRADE 10 Papua New Guinea students. It was around the time that "Social Science Outcomes" was completed that Eric asked me if I would like to do some maps of explorers' tracks. Some years ago I read the story of Charles Karius and Ivan Champion's journey across PNG from the Fly River to the Sepik River, so I was hooked. Eric has written around thirteen books for PNG schools. "PNG History, Through Stories" Book 1 and Book 2 have 69 history stories. These books are given to every child who goes to school. "Famous People of PNG" is a series of nine books about prominent people. These books were approved for use in the PNG schools last year. A few of the titles are "Dame Alice Wedega", "Bishop Sir Louis Vangeke" and "Sir Simogun Pita and Paramount Luluai Golpak". After the North West Patrol 1926-28 maps I will tackle Hides and O'Malley's Strickland-Purari Patrol 1934-35 and then Champion and Adamson's Bamu-Purari Patrol 1936.

Part 2

<u>Wednesday 11th May.</u> - Karius and party continue their journey along the Tekin No3 River where they encounter another landslide. Karius was at the rear of the party when the ground started to move. They were able to clear the slide. Karius (1927, p. 98) writes, "*Looking back I saw the whole of the hill on the move, not a tree, bush or blade grass left on the hillside...the whole side had shed its face, and presented an entirely new appearance of bare rock and earth.*" The party were still in the Tekin Valley as they moved north east to avoid the gorge where the Takin River swings south and passes between the two peaks mentioned on the 10th May. They made camp (K11) at 4:45pm.

The day's travel was approximately 4.5 miles (7 km). Camp K11's position 629000 E, 9410500 N is an estimate only.

Thursday 12th May. - The party reached a river which Karius named the Crystal Creek in his report and Crystal River on the 1929 map. This map shows the Crystal River running along the northern watershed of the Victor Emanuel Range and then turning south to run around the eastern edge of the range. This can only be the Ok Om and the Strickland River as we know them today. According to the 1929 map Karius did a short trip north east along the Strickland River then returning to where he first sighted the river. They moved south crossing the river a number of times, finally crossing to the eastern side near its junction with the Takin No3 River. However, there is no mention in Karius's report of 1927 that the party travelled north along the Crystal River and then turned back to follow the Strickland River.

"After travelling for several hours noticed that the class of stone in the river bed was gradually changing. Flashes of snow white showing up with the red and brown of the original formation" Karius (1927, p. 98). This is a reference to two patches of pink granite in the bed of the Strickland River at 622100E, 9403900N and 620100E, 9401600N. The brown colour suggests some decomposition of the granite. This is the only area on the Blucher Range 1:250,000 Geology Map which shows deposits' of Strickland Granite – Palaeozoic Rocks probably of Upper Permian. This is as good as it gets in placing Karius along the Strickland River at midmorning of the 12th May, see ANNEX C. About six hours later Karius sees a wall of limestone hills in front of them and worries about their chances of continuing along the Strickland River. "Can ill afford the loss of a day, as rations low" Karius (1927, p. 98).

The day's travel was approximately 10 hours x miles (x km). Camp K12's position 619200 E, 9390300 N is an estimate only.

<u>Friday 13th May.</u> – Moved off at 5:45am easy travelling along east bank of river. Passed the remains of a suspension bridge where the river is well over 100 yards wide. Continued journey passed two big creeks entering the river from the west bank side.

"A loud roaring sound coming from somewhere ahead of us. This indicating a gorge, and the end of our hopes of getting through the limestone belt in this direction. At 9:30 a.m. entered a gorge with walls fully 1500 feet high. The entrance to the gorge 150 yards wide, 50 yards inside the width reduced to 30 yards. Height above sea level at this point, 650 feet. The roar and thunder of this mighty volume of water racing through this confined space was terrific. Impossible to hear each other speaking. Quite impossible to go ahead here. Have named this gorge Devil's Race" Karius (1927, p. 98).

Travelling time to Devil's Race was about 3 hours 45 minutes. Distance travelled was not recorded by Karius. The position of Devil's Race is grid 628300 E, 9376800 N. Halted at an obvious barrier along the Strickland River. Karius had no option but to retrace his steps and try to find a route around the enormous limestone wall in front of them. To the east there is no option but to the west is a mountain saddle which could be crossed. This saddle can be seen on a digital terrain model (3D simulation - rotated). They found a suitable place to cross the Strickland and started to build a bridge at 11:00am. Karius (1927, p. 98) writes, "The police were given credit for most of the work on the bridge construction, particularly Sergeant Gegera and A.C. Aruru who were worthy of mention". All had crossed the bridge by 4:00pm and climbing towards a better camp site at about 1400 feet. Karius (1927, p. 98) writes, "I could expect fairly even country and not too much water... A fairly level piece of ground found and camp (K13) made. Behind us and about one mile distance, rose an immense wall of limestone, showing splashes of snow white, where recent slides and falls had exposed the naked rock". There was little sleep for anyone, the night being a fearsome one. By 8:30am (it should read 8:30pm) rain was falling and quickly increased in intensity until as Karius (1927, p. 98) puts it, "It seemed to be just one solid mass of water pressing down on us. The noise and roar was deafening. Tents and flys were useless. Quickly our little camp site was covered by a racing torrent of water, inches deep."

The camp site was in an area under continuous cloud cover. Mapping organisations attempted many times to have this area covered by aerial photography. They failed due to the continuous cloud cover. As a consequence the relief data for the Royal Australian Survey Corps 1970's 1:250,000 and 1:100,000 maps, is incomplete over an area of approximately 60 square kilometres commencing at and north west of the Devils Race.

The day's travel was not recorded.

Camp (K13) is approximately at 625000 E, 9382000 N.

Saturday 14th May. – Moved off at 5:45am, at about 10:30am they found a faint track which they followed in a WNW direction for an hour, then came upon a well defined track which took them through two villages. The second village is at 609800 E, 9383170 N. The party continued to walk in a southerly direction and crossed the divide at 2:15pm. At the top of the divide they saw to the south east, east and south west the low country, a broken limestone belt stretching as far as the eve could see. At 4:00pm they arrived at a village where they purchased a small amount of native food and stayed overnight (K14). Some native women, who at the sight of the white Karius hid their faces in their hands and fled screaming and wailing into the bush. The day's travel was approximately 9 miles (14 km).

Camp (K14) position is approximately at 610900 E, 9379900 N.

Sunday 15th May. – Moved off at 6:00am. The party pushed ahead through some rough country with many watercourses. Moving in a south and south east direction for about two miles (3 km) where they came across a river which Karius named the "Murray River". At this section of the river there was no place to ford, but a further mile downstream saw them at a suspension bridge with a span a of 200 yards across the gorge. It took three hours to carry all of the stores across the bridge. Made camp (K15) near the western end of the bridge. The day's travel was approximately 3 miles (5 km).

Camp (K15) is approximately at 610600 E, 9376500 N.

Monday 16th May. – Karius's own words express best the dire situation they are in. "Raft making. River racing" and many rapids, better, however, to risk these than attempt a passage over the fearful broken limestone country all about us. Speed is our main consideration now. Only seven more days' rations left. Must keep *moving*" Karius (1927, p. 99)

No travel for the day instead remained at camp K15.

<u>Tuesday 17th May.</u> - Continued raft making until pushing off at 1:00pm with all the gear lashed to the rafts. Rafts stopped by a limestone bar across the river. They landed all of their stores, but lost one raft which was smashed during the landing. Made camp K16 and commenced to make two more rafts.

The day's travel was approximately 5 miles (8 km).

Camp K16's position 613000 E, 9374000 N is an estimate only.

Wednesday 18th May. – The party completed their work on the new and old rafts, and moved off to an exciting run through a series of rapids. Karius (1927, p. 99) writes, "Suddenly my raft, in the midst of a rapid, hit a submerged rock and stood completely on end, hung in that position for a moment or two, and then slipped back into the water, fortunately right side up. All hands thrown or jumped clear and managed to scramble back on to the raft, as also did one of my crew. Sergeant Gegera and the balance of crew swam for the shore." Karius with his one crew member endured more rapids before coming to some quite water. Rafts 2 and 3 turned up shortly afterwards a bit shaken. Sergeant Gegera and the rest of the crew turned up on the opposite side of the river and swam across. Karius lost some of his equipment including his rifle, clock and aneroid barometer, fortunately no rice was lost. Two hours later the crew of the fourth raft turned up carrying their gear overland. They had to abandon their raft in a whirlpool. Karius decides rafting on this stretch of the river is too hazardous and travels overland to find calmer water.

No time or distance travelled was recorded for this day and therefore the position of camp K17 is unknown.

<u>Thursday 19th May to Saturday 21st May.</u> – Traversed over very broken limestone country which is constantly being eroded by the effects of earth tremors and water. Came to a quieter part of the river on the 20th and once again begin raft making, which continued all day on the 21st.

No time or distance travelled was recorded for these days and therefore the positions of camps K18 and K19 are unknown.

Sunday 22nd May. – Commenced rafting again at 6:00am Karius and party pass through more rapids before stopping at noon to overhaul the rafts and moving off again at 1:00pm. At 2:30pm their position can once more be established because they arrived at the junction of the Murray River and the Strickland River at grid 626450 E, 9352350 N. Karius (1927, p. 99) writes, "Wildly exciting time here. The Strickland (is) an immense stream of milky white water, the right bank, just below the junction, a shelving bank of rock. The stream caught us and hurled us at terrific pace into this wall of rock. Lifted us almost clear of the water, where we hung for a moment or two and then dropped us into the stream again. From here we charged to the other side of the river, and were caught in a huge whirlpool". Each of the first three rafts took about an hour to escape the whirlpool and make a landing about five miles further down the river. Raft No 4 tipped over backwards when it hit the shelving bank of rock. It arrived at the landing upside down with all the crew safe. When the gear was checked Corporal Iari had lost a rifle and swag, a tomahawk was also lost. "Luckily there was no rice on raft No 4". The distance from the Murray/Strickland junction to K20 is approximately 6 miles (10 km). Camp K20's position 629000 E, 9410500 N is an estimate only.

The coordinates of the camp sites after K20 are yet to be completed.

Monday 23rd May. – Travelled from 8:00am to 4:00pm. "*The river an immense size*" is an indication that they have passed into the flat country and away from the limestone.

The day's travel was approximately 24 miles (38 km).

Camp (K21) is at approximately grid 5xxx00 E, 9xxxxx00 N.

<u>Tuesday 24th May.</u> –Travelled from 6:00am to 4:00pm a distance of about 30 miles (48 km). Only two and a half days of rice left and Karius ponders when they might sight a sago patch. Camp (K22) is approximately at 5xxx00 E, 9xxxxx00 N.

Wednesday 25th May to Friday 27th May. – Finally arrived at an expected sago patch and spent the 26th and 27th sago making. Adding to the food supply was the efforts of two Acting Constables who shot two pigs, a cassowary and a wallaby which was much appreciated by the party. However, according to Karius theft of food became a problem.

The day's travel on the 25th was approximately 7 miles (11 km).

Camp (K23) is approximately at 5xxx00 E, 9xxxxx00 N.

Saturday 28th May. - After some heavy rain the party moved off at 10:00 and at 11:10 Karius wrongly thought he was at the junction of the Strickland River and Carrington River (Wai Asia). The Carrington joins the Strickland north of the Murray/Strickland junction. It is more likely he is at the junction of the XXXX River and the Strickland River. At 5:00pm they set up camp (K24)

The day's travel was approximately 22 miles (35 km).

Camp (K24) is approximately at 5xxx00 E, 9xxxxx00 N.

<u>Sunday 29th May.</u> – Moved off at 6:00am, came across a coconut tree with enough nuts for every one in the party. "*A welcome change and addition to our diet. I was becoming very tied of plain roasted sago*" Karius (1927, p. 100). Due to heavy rain camp was made at 3:00pm. A cassowary and three blue pigeons were shot. The day's travel was approximately 24 miles (x km).

Camp (K25) is approximately at 5xxx00 E, 9xxxxx00 N.

Monday 30th May and— The party moved off at 6:00am and the river is now large and slowly flowing passed large sago swamps. Camp was made at 4:15pm and it was approximately 24 miles (x km) to camp (K26) at 5xxx00 E, 9xxxxx00 N.

<u>Tuesday 31st May.</u> – Moved off at 6:00am with the river the same as the 30th. No time of arrival at camp (K27). The distance travelled was 23 miles (x km). Camp (K27) is approximately at 5xxx00 E, 9xxxxx00 N. <u>Wednesday 1st June.</u> – "An immense alligator shot. Carriers hugely delighted. Claim it is even better meat than pig" Karius (1927, p. 100). Made camp (K28) at a sago swamp at 1:00pm The day's travel was approximately 16 miles (x km). Camp (K28) is approximately at 5xxx00 E, 9xxxxx00 N.

<u>Thursday 2nd June.</u> – Remained at camp K28 and spent the day sago making. A canoe with four local natives sat some distance away from the camp then after an hour cleared off downstream. At midnight a larger group arrived and after much shouting and an hour later they too took off, not to be seen for the rest of the night. No travel today.

The 3rd of June was such a fascinating day and so well told by Karius, that it is only fitting that he should tell the full story.

Friday 3rd June. – Karius (1927, p. 100) writes, "Moved off at 5:30am. Met the canoe of the advance guard 6:15am. The natives in this canoe, on catching sight of us, fled downstream shouting out the news of our approach. Shortly after this canoes appeared from all quarters, each fully laden with natives. Some of them were paddling, whilst others held bows and arrows. We were quickly surrounded. Terrific shouting and excitement amongst the bushmen. We, on our part, kept perfectly silent and steadily continued on our way. Needless to say, we were on the alert and ready for prompt action, if necessary. Our behaviour seemed to nonplus the bushmen, they gradually quietening down and slowly drawing slightly further away from us. At this I shouted out to one of the crew, at the same time beckoning them to come alongside. Very slowly they complied; trading relations were established soon after this. Excitement became intense again. A mob of shouting natives surrounded each raft. We had by this time drifted downstream a considerable distance, and came abreast of a large native settlement. We received many pressing invitations to land. Becoming more insistent, and, no doubt, with a view to adding a further inducement, they, by signs many and varied and highly

illustrative, invited us to co-habit with their womenfolk. When they saw we had no intention of accepting the invitation, much shouting to and fro from canoes to the village, and the next move in the plan was unfolded. A party of 39 women, young and old, came down to the water's edge, and commenced to bathe themselves, the majority discarding their grass skirts. This was too obviously a trap, and needless to say, the invitation was not accepted. Pulled close into the shore some 400 yards below the village, and commenced to barter for canoes. Purchased six large canoes. One old man presumably a sorcerer, pottering about in a canoe with only one native as a crew. The old man had clasped tightly to his chest a highly-polished human skull. This he pointed in the direction in which he wished to go, any canoes being in the way quickly moving to one side, leaving him free passage. As his was a big canoe and he being willing, I purchased same, instructed the old man and his crew of one to step into one of the other canoes and leave his with me. Not one of the natives would have him aboard their canoes. They took the young man readily enough, but not the sorcerer. His canoe commenced to drift downstream. Here seemed to be a situation little to his liking. To paddle ashore he would first have to dispose of the skull. Could not hold that and paddle at the same time. One could read his thoughts as easily as if they were spoken, so keen was his distress. Eventually he placed the skull in the bottom of the canoe, took of a paddle and made for the shore in haste. Picking up the skull again, and again holding it in position on his chest, he made off rapidly into the bush, and that was the last we saw of him. The canoe was later brought out to us. The women wear long grass skirts. The men wear either a large white shell, or a highly-polished three-sided nut. Not unlike a short, thick banana in shape. Counted 93 adult males, 39 women, and in the distance many children. Twenty-seven canoes the largest having a crew of fifteen and amidships an immense stack of arrows. Spent two hours with these people and then continued our journey downstream towing behind us our newlypurchased canoes. At mid-day we passed what Sergeant Gegera informed me was the river coming down from Lake Murray (Herbert River)". At 4:45pm camp (K29) was made.

The day's travel was approximately 22 miles (x km).

Camp (K29) is approximately at 5xxx00 E, 9xxxxx00 N.

<u>Saturday 4th June.</u> – During the morning the canoes were lashed together in pairs and then a platform was built across each pair of canoes, where the gear was stowed. The party moved off at 12:15pm travelled until 4:45pm and made camp (K30).

The day's travel was approximately 14 miles (x km).

The day's camp site is (K30). which is the last camp site documented by Karius. K30 is approximately at 5xxx00 E, 9xxxxx00 N.

Sunday 5th June to Friday 10th June. – Food was plentiful along this stretch of the river. Arrived at Everell Junction about 1:30pm then halted to collect wood from 4:00pm to 5:30pm. Karius decided to travel day and night stopping only to cook. The village of Weriadai was their first goal and they arrived there at 4:00am on the 8th June. They were overwhelmed by the reception they received. They left their canoes at Weriadai and were ferried to Madiri by the local people. News from the locals was that Ivan Champion and party had not been seen, but Sergeant Simoi and party had come through safely. On the 8th June camped at Sapara. Thursday 9th arrived at Madiri 2:15pm where they had another great reception from Mr and Mrs Freshwater. Karius was invited to stay the night at Madiri. Mr. W Lambden A.R.M. arrived on board the Government launch *Minnetonka* at sundown.

On the 10th June the *Minnetonka* took Karius's carriers to Siwirimabu village where arrangements were made to have them returned to their villages and then for Karius it was on to Daru.

Saturday 11th June to Tuesday 19th July. – This was an anxious period of waiting for news of Champion and his party. Early in July Karius left Daru with the two boats *Elevala* and *Minnetonka* with the idea of locating Champion and his party. Karius (1927, p. 101) writes "At 4:00am Tuesday, 19th July, whilst anchored off Baramura village, one of my police challenged a passing canoe and great was our delight when the answering voice was recognized as belonging to one of the police in Mr. Champion's party. To say that we were greatly relieved to come up with Mr. Champion and to hear that all was well with his party would be a mild expression of our feelings. Although at no time did I lose faith in Mr. Champion's ability of caring for his party, I could not

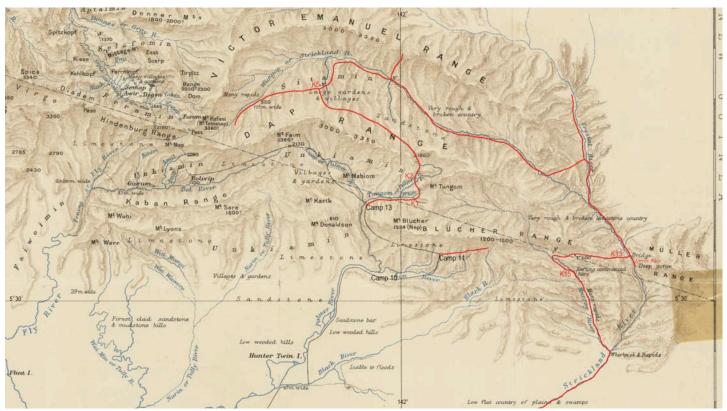
help feeling anxious". It was presumed Champion would be in Daru before Karius but instead arrived five and a half weeks later.

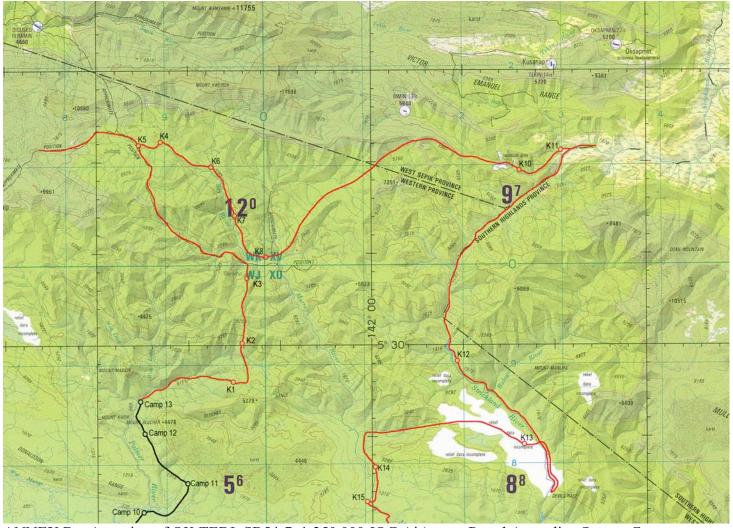
Conclusion

Karius carried the only map. Champion described this map as being a blank space between Mount Blucher and the Victor Emanuel Range. In fact it turned out to be a blank canvas. We know their mapping equipment included a compass, a notebook, a pen, a hypsometer and more than one aneroid barometer. It seems that the original notebooks no longer exist so I had to trust the transcriptions in the annual reports. In these reports there are no compass traverses recorded, not in the way we surveyors would expect. There are no bearings, however, there are distances recorded as time and or miles and sometimes nothing at all. Two years after their arduous journey Karius's recall of much of the detail would be disparate memories. Therefore the 1929 map is an artistic representation of the country. It is not the descriptive detail of a piece of the earth's surface accurately mapped from ground to paper.

Rather than write a drawn out conclusion for this newsletter I will let the differences between the maps in ANNEX A and ANNEX B tell the story.

My thanks go to Eric Johns for asking me to map PNG explorers' routes for his book on a History of PNG for secondary school students and his encouragement and advice during the writing of this article for the newsletter. To the Staff of the Map Reading Room at the National Library of Australia, Dr. Martin Woods, Dr. Brendan Whyte, Lyn and Quentin go my sincere thanks for your advice and guiding me around the Map Reading Room. To Professor Michael Bird of the James Cook University, Cairns Campus, I thank for the information provided. **Noel Ticehurst P.O. Box 4774 HIGGENS ACT 2615 Telephone 02 6254 4255**



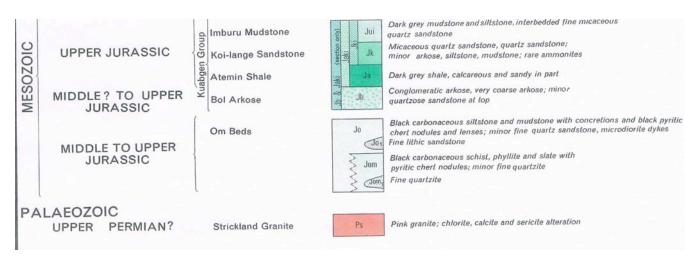


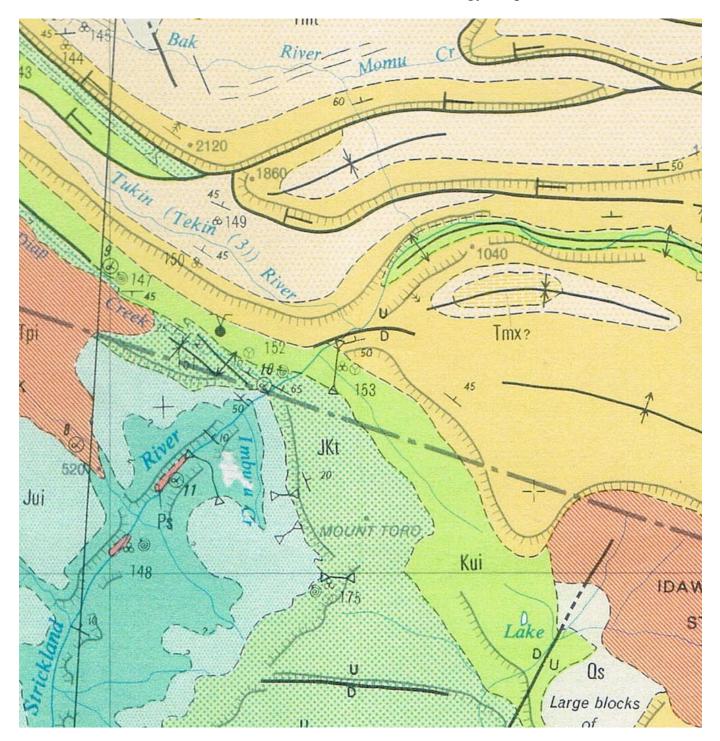
ANNEX B A section of OK TEDI, SB54-7, 1:250,000 JOG Air) map Royal Australian Survey Corps Charles Karius and Ivan Champion's combined route: **O------O** Charles Karius's solo route: **O------O**

ANNEX C

The map on page 13 shows two small patches of pink granite along the Strickland River which Karius and party crossed at mid-morning of the 12th May.

Map symbol: Ps refers to the Strickland Granite – Palaeozoic Rocks probably of Upper Permian time, see below.



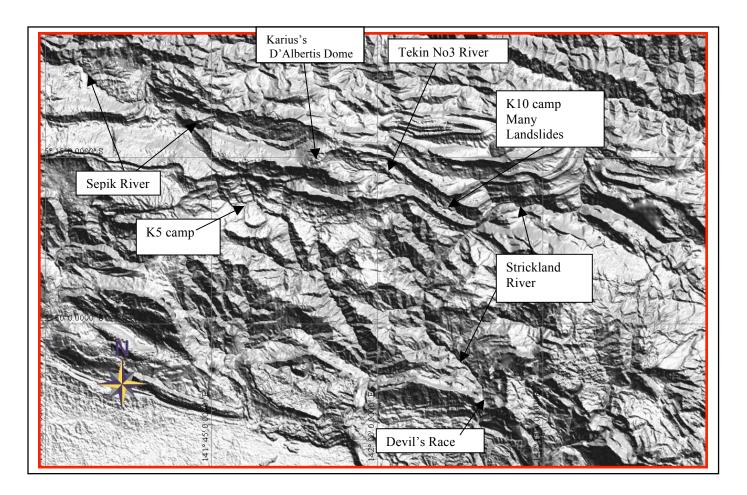


The NASA Shuttle Radar Topographic Mission (SRTM) image on page 14 has provided digital elevation data (DEMs) for over 80% of the globe. This data is currently distributed free of charge by USGS and is available for download from the National Map Seamless Data Distribution System, or the USGS ftp site. The SRTM data is available as 3 arc second (approx. 90m resolution) DEMs.

Citations

• Jarvis, A., H.I. Reuter, A. Nelson, E. Guevara, 2008, Hole-filled SRTM for the globe Version 4, available from the CGIAR-CSI SRTM 90m Database at website (http://srtm.csi.cgiar.org).

DIGITAL ELEVATION MODEL - Covering an area along and south of the Victor Emanuel Range





Nancy Shaw wife of Ken Shaw passed away on 29th May at Umina. Nancy was a wonderful vibrant individual and like Ken she was a good friend and mentor to many young Sappers at the School of Survey at Balcombe and later at the Survey Regiment in Bendigo.

Ken and Nancy we wonderful hosts and enjoyed life and a party with their many friends.

The photograph was taken at their home in Bendigo around 1963 with Nancy waiting for one of Ken's wild BQ fires to reduce in size.

The latest Queensland bulletin has more information about Nancy Shaw and other members recently deceased.

Note all the past NSW and other state newsletters are available on www.rasurvey.org
Please also note there is postal change of address for the NSW association it is now;
P.O. Box 63 SPRINGWOOD NSW 2777

Richard Jackson-Hope O.A.

President / Editor
Royal Australian Survey Corps Association (NSW)