

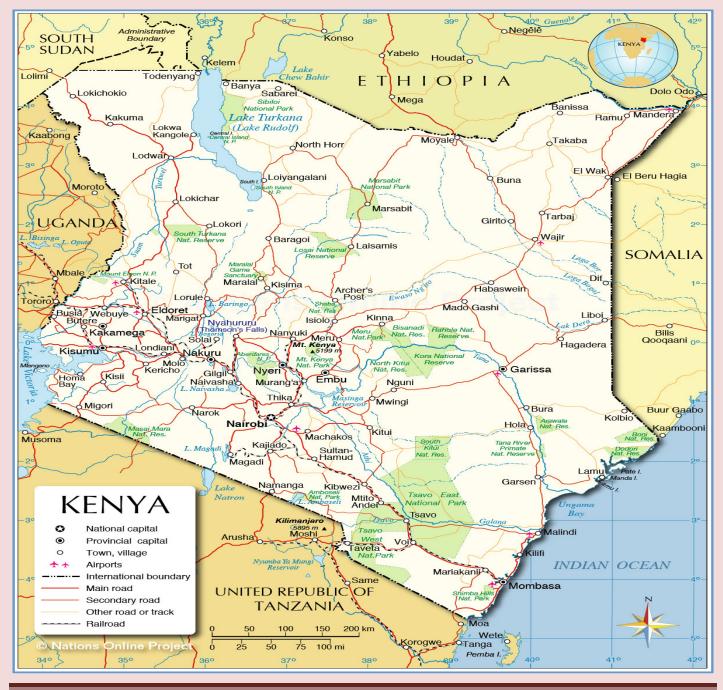
The Military Survey (Geo) Branch

Summer Newsletter 2020 – issue 76

THE SAPPERS MAP A PROVINCE

Sappers blazed a trail through one of the loneliest areas in the world when they re-mapped Kenya's Northern Province, a task that took more than two years to complete.

(From a Report by Army Public Relations East Africa – Published in the Sapper Magazine in November 1959)



(Mau Mau terrorism in Kenya brought 89 Field Survey Squadron into existence in 1953 when maps of Kenya were all on a small scale and had many gaps. The Squadron quickly produced more detailed and accurate maps of the trouble areas.)

No-one may enter Kenya's Northern Province without permission. Few people seek to do so, for this is one of the loneliest and wildest areas in the world. But for 30 months the frontier has been an open door to officers and men of 89 Field Survey Squadron, Royal Engineers, who have now completed the mammoth task of re-mapping this African Province.

Two and a half years may seem ample time in which to cover an area of nearly 90,000 square miles – the equivalent of Great Britain and Northern Ireland – but not to those who know the Northern Province. The population "density" averages only one to two persons a square mile; distances are measured in time between waterholes rather than miles; there are no metalled roads, few tracks, and movement by vehicle usually means blazing a trail.

The countryside varies from precipitous, saw-toothed ridged hills, palm oases, bamboo forests and thick jungle to millions of acres of sand or pumice plain and lava fields where the life of a tyre is only 300 miles.

Until the South African Army surveyed the area during World War Two, maps of the Northern Province were expensive and to the small scale of 1:1,000,000. The South Africans did an excellent job, but it was done in a war-time hurry and to a scale of only 1:500,000, with still many blanks left.

Then, at the end of 1956, 89 Field Survey Squadron was told to produce an up to date and reliable set of maps to 1:100,000 scale. So, the Squadron's five officers and 80 other ranks began a job which meant doing everything from setting up a theodolite in Ethiopia to printing a perfect five-colour map in Nairobi.

The first step was aerial photography of the area from 40,000 feet, much of it undertaken by the Royal Air Force and the remaining by charter firms. Then the Squadron's surveyors moved on to the ground. From the aerial prints, they pin-pointed a single feature – and in the vast expanse of thorn-scrub desert it was often a single acacia tree, the only one for miles around – and fixed its position by astronomical sightings. Over a hundred of these astro-points were established at about 30-mile intervals and an estimated cost of £500 each.

A typical five-man party from the Squadron would search for a particular tree in the middle of nowhere. Probably no white man (and, for that matter, very few natives) had ever been there before. Getting there might – and sometimes did – mean leaving the truck and taking to a camel or dug-out canoe, hastily avoiding a herd of elephant, or losing their food, except unopened tins, to a wandering column of *safari* ants. They had to conserve their water, keep a close eye on petrol supplies and find their way by compass. An erratic compass might halt them at the foot of a 20-feet high chocolate-brown wall where a stream of lava had petrified thousands of years ago.

Before a survey party could enter the Province, the Squadron had to seek permission from the District Commissioner and then for several days prepared for the journey, checking vehicles and loading tents, food, petrol and technical equipment.

For the first 30 miles from the Squadron Headquarters in Nairobi a comfortable tarmacadam road stretched north to Thika, giving way there to *murrum* tracks from which clouds of dust billowed over the trucks as they drove through mile after mile of sisal estates.

Beyond the rows of ten-foot high sisal plants, with 260 miles still to go, the country became rugged, the road winding through dry *wadis*, past huge pointed hillocks, jagged rocks and boulders as big as a three-story house.

At a point 150 miles north of Nairobi an African policemen lifted a barrier across the track leading into the Northern Province. Another 100 miles on and the convoy-vehicles, Army or civilian, never travel singly in the Northern Province-drove into Garissa, which boasts a European population of nine, a police station, District Commissioner's office, a few houses and one or two Indian-owned shops. Marabou storks solemnly stood in a quiet corner, watching local tribesman, a few camels and some Somalis, with their cattle, passing through on the six-week walk to market.

The Survey party set up base camp on the riverbank–a marquee with one end serving as an office, a neat enclosure for vital vehicle spares, and for amenities a wood fire blazing in a crude hearth, a radio set, and an improvised shower.



High Ridge Camp Nairobi 1958 Back row: Brian Sarney, David Cleall-Harding, Bill Glover, Gunning, Maurice Friend. Front row: Eddie Stanhope, possibly John Townsend, Martin Harvey, John Emery.

An Army Catering Corps cook, helped by other members of the party, set to work on the "compo" the field team's basic food. The Sappers always took cash to buy fresh food locally but there was rarely any to be found. Meat was not scarce, however, as each party of five or six was allowed to kill a Grant's gazelle or gerunuk a week, plus an unlimited number of specified birds, under a licence granted to the Squadron's Safari Club.

Then the field party set out for the long drive into the scrub; the two surveyors, three drivers, rations, petrol, water, instruments – and the all-important aerial photograph – in two three-ton lorries and a Land-Rover.

They halted under an acacia tree and as the first stars began to twinkle the surveyors set to work on their theodolites, jotting down their calculations, which were to be checked the following night. Next morning, they noted the scanty features such as camel tracks, sand, thick bush impassable to motors, seasonal rivulets and the position of three holes. In the 140 square miles covered by the photograph there were no roads, no towns, and very little else.

Then the team set off again to cover another barren square of wilderness. At the end of several weeks the men returned to Nairobi to translate the field work, through many technical and complicated processes, into the makings of an accurate and informative map. Then another team went out to check the original field work and ensure all possible detail had been included.

In his 15 months with the Squadron, Sergeant J. A. Collins of the Royal Electrical and Mechanical Engineers had twice to condemn vehicles in the field. One of them, a quarter-tonne truck, had ripped its chassis apart on a rock near the Ethiopian border. In one day, he stripped the truck and took the pieces back to Nairobi.

The other vehicle, a three-tonner, twisted its chassis lurching over lava beds. It took Sergeant Collins three days to take that lorry apart. Sergeant B. C. Way an electrician in the same Corps, tackled jobs from a complete engine change to major welding.



To avoid getting the locals in a tizzy, the convoy left camp in twos and threes, meeting up on the Garissa road. Once assembled it headed for GARISSA, and then on to MANDERA (near the Somalia and Ethiopia border).



Kenya – Somalia border looking north

Some Sappers were involved in unusual adventures. One team had crossed the Sudan border to take readings and then found that the vehicle had broken down. The Sappers were worried about getting back to their base camp; unknown to them, the outside world was reading about a *coup d'état* in the Sudan.

Spares were flown out by Kenya Police aircraft, but neither the pilot nor his passenger, Major D. P. S. Wilson, the Squadron Commander, knew what their reception might be in the Sudan. As it turned out the Sudanese Army authorities were most helpful, the truck was repaired, and the team returned to base after being "lost" for eight days.

When its task was finished, the Squadron, which is now disbanded, held a farewell parade in Nairobi attended by both the General-Officer-Commanding, East Africa Command (Major-General N. P. H. Tapp DSO) and by the Governor of Kenya, Sir Evelyn Baring. Appropriately the parade was held at the Survey of Kenya's Field Headquarters where the Squadron's processing equipment had been installed and where Sapper technicians had worked alongside their civilian counterparts.



His Excellency, the Governor of Kenya Sir Evelyn Baring GCMG KCVO took the salute at the disbandment ceremony of 89 Field Survey Squadron on 10th July 1959. The GOC East Africa Command, Major General N P H Tapp CB CBE DSO and Brigadier J B Brown (DDFW) also attended the ceremony.

The Survey of Kenya is completing the production of the maps for which the Squadron has done all the field work, 70 per cent of the compilation, half the drawing and 30 per cent of the printing. The new maps will be five times the scale of the old ones and a great improvement on them.

The Sappers can be justifiably proud of their achievement, of maps which will be useful not only to soldiers but to farmers, travellers and policemen; maps on which Man has noted a few more facts about himself and his world.

(Article transcribed by Noel Grimmett in February 2020)

As a supplement to the article I include a nominal role of those surveyor trades serving with 89 Field Survey Squadron RE in July 1959. Source: TNA WO 402/339.

Officers and Senior NCO S							
367651 411998 418336 456356	OC 2IC OIC Trig Troops Trig Offr		Major D.P.S. Wilson MBE Capt T.A. Linley Capt R.P. Mills 2Lt J.G. Scott				
6207256 2326657 22967459 1931946 22526336	SSM SQMS Trig Svyr		WOII Freestone L.J. Ssgt Brooks S.H. Sgt Powell T. Sgt McVeagh H.A. Sgt Kennard H.G.	Dtmn Topo AII Litho Dtmn AII Svyr Trig AII Svyr Trig AII Dtmn Topo AI			
		Other Ranks					
23493238 22771165 22821127 22550222 22771362	Cpl Cpl Cpl Cpl Cpl Cpl	Foster J.M. Overton A.E. Percival R.W. Scott O.M. Jackson S.G.	Svyr Trig All Litho Ret All Svyr Trig All Litho Ret All Litho MM Al	I			
23502428	Lcpl	Craig E.J.	^	Dtmn Topo AIII			
23501521	Lepl	Friend M.	• •	Svyr Topo AIII			
23485257	Lepl	George J.A	^	Dtmn Topo AIII			
23488680 22821127	Lcpl Lcpl	Lane J.R. Percival P.B.		Svyr Trig AIII Litho MM AIII			
23512319	Lepi	Tromans I.G.		Svyr Trig AIII			
23537757 23419573 23497532 23494965 23501174 23401359 22974322 23412241 23512302 23491994 22309228 23527150 23409377	Spr Spr Spr Spr Spr Spr Spr Spr Spr Spr	Barcock B.D. Brown G.C. Casey D.P. Cleall-Harding I Ganly R.A. Glover W.T. Hamer H.R. Jones C.E. Miller E. Hyde J. Paxton R.C. Wells V.J. Wheeler M.E.	Stmn Svy BII Dtmn Topo A Litho Prov Al	I III I II II II I I II			

Officers and Senior NCO's

(The Editor would like to thank Maurice Friend & Bill Glover for providing photographs and comments on their time with the Sqn in Kenya)

REPORT ON SURVEY TASK IN NORTH TURKANA NFP KENYA OCTOBER – DECEMBER 1958 BY 2Lt M. J. H. OGDEN RE

Comments by Officer Commanding 89th Field Survey Squadron RE

An interesting report on a task well done. It is also factual and well prepared. The success of the administration and welfare of the detachment was due in a large measure to the efficiently run base camp and the co-operation received from Mr. G. C. M. DOWSON DC TURKANA in allowing the use of the incomplete hospital at LODWAR. The general comment on this detachment from the rank and file was "Let's have some more like that one".

27 May 59

D P S Wilson Major RE Officer Commanding

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<u>PART I</u>

THE OBJECT OF THE TASK

The object of the task was to complete the outstanding field work for the 1:100,000 mapping of area 'E' (TURKANA). The required 6 astro points were fixed together with a further 6 PIR's. Some Barometric heighting was carried out, (see Appx 'F'). Photo annotation of 2,000 square miles was complete.

<u>PART II</u>

BRIEF REPORT ON EXECUTION OF TASK

<u>Object</u>

The object of the task was to complete the outstanding field survey work in area 'E' (TURKANA). This involved:

- (a) 6 astro fixes to provide planimetric control for the laydown slotted template at photo scale (1:80,000)
- (b) PIR of six known trig points to give vertical control.
- (c) Barometric heighting along roads to vertical control.
- (d) Photo annotation to assist in completion of maps.

<u>History</u>

The work was a continuation of the previous season's work in TURKANA (Dec 57 – Aug 58)

Manpower

- (a) The detachment had a total strength of 1 officer and 22 ORs drawn from Nos 1 & 2 troops and HQ 89 Field Survey Squadron RE.
- (b) The detachment was organised into two field parties operating from a base camp at LODWAR.

Duration of Task

The Survey Task lasted from 2 Oct to 14 Dec 1958 – a period of eleven weeks.

Results

Results of the work, together with probable errors are listed in Appx 'E'.

PART III

DETAILED ACCOUNT OF OPERATION

Introduction

(a) The field survey task in the Northern Frontier Province of KENYA was the subject of several previous field detachments from 89 Field Survey Squadron RE. The work in area 'E' (TURKANA) for the 1:100,000 maps had been started in the season Dec 57 - Jul 58.

(b) There remained several ground control points to be established. Photograph annotation and Barometer Heighting in the area still remained to be completed.

(c) Although the amount of work outstanding was not very great, the points were widely separated. In addition, two journeys involved the detachment in visits to the SUDAN and ETHIOPIA.

(d) Due to the impending disbandment of the Squadron and the necessity for obtaining the control as quickly as possible, the date for completion of the task was established as the third week of December 1958.

Preparation and formation of detachment

(a) It was decided to establish a base camp at LODWAR from which two field parties would operate.

(b) The eventual strength of the detachment was one officer and twenty-two other ranks.

These were composed as follows:

i) 8 surveyors, Troop Sergeant remained at base camp to co-ordinate technical work and normally had the assistance of one other surveyor. Field parties were normally composed of three surveyors, two drivers a driver/mechanic, under the command of a survey Cpl. This standard unit varied however on the SUDAN and ETHIOPIA expeditions.

ii) One REME vehicle mechanic permanently at Base Camp, and two vehicle mechanics (RE).

iii) 8 drivers.

iv) Additional personnel in Base Camp included:

1 LCpl Storeman, 1 MT Storeman, 1 Cook.

(c) Profiting from the lessons of previous detachments a larger number of vehicles was made available. Eleven vehicles were sufficient to lift all the stores from NAIROBI to LODWAR and all these vehicles remained with the detachment. For details of transport see Appx 'G'.

Plan of Operations

(a) Two factors influenced the planning of the operation:

(i) No definite answer was expected on the possibility of visiting the SUDAN and ETHOPIA until the visit of OC Sqn to KATOETA on 16 Oct – two weeks after the detachment arrived at LODWAR.

(ii) A comparison was required between the merits of the 32-star Position Line method and the Independent Latitude Longitude method for Astronomical observations.

- (b) As a result of these two factors, it was decided to complete the SOUTHERN part of the task first, and then, having decided on the best astro method, and having received instructions from KAPOETA, to work NORTHWARDS.
- (c) It became clear that, due to the distances involved between the points, the field parties would normally only tackle one point at a time and would return to Base on completion for refitting. This had several advantages.
 (i) There was no delay in receiving and checking results of technical work.

(ii) It enabled vehicle inspections to be carried out solely in base camp, in better conditions and with better results than could be obtained in the field.

(iii) It enabled stricter time control to be kept on the parties, vital when a completion date is to be kept.

(iv) Medically and Psychologically, it was found that several short visits to base camp for rest, refit, a swim, and some mail from home as well as a change of diet, produced better results than long field tasks with correspondingly long periods in base camp.

(v) It enabled all drivers to have an opportunity of working in the field by varying the composition of the parties slightly.

(d) As a result of the KAPOETA conference on 16 Oct, plans were made for one party to visit the SUDAN. Meanwhile the other party was to complete the LOKICHOGGIO area before moving NORTH to PIR LOKWANYA.

(e) Due to unexpected difficulties of terrain, both parties were delayed, and the programme was behind schedule when the OIC returned from the SUDAN on 26 Nov.

(f) It was decided to make up a third party to complete the PIR of LOKWANYA, whilst the two original parties completed the work around LOKICHOGGIO.

(g) At the same time the troop sergeant went on a recce to the PUTCH PRASIR area with DC LODWAR to establish the best way of tackling this area, should annotation be required.

(h) The last field party returned to Base Camp on 10 Dec, the day on which the detachment was visited by the Engineer-in-Chief, Major General SUGDEN CB CBE DSO and three days before the planned departure of the detachment for NAIROBI.

(j) The planning of the task was designed so that the field parties were in base camp at the end of each month. This enabled most administration work and returns to be completed without delay. Pay and supply convoys were also designed as far as possible to coincide with the return of the parties.

(k) The weather was very good. There was hardly any rain and observations for astro were normally completed in the first two or three days. In one instance only – in ETHIOPIA – did thick cloud hamper the work, due to the absence of rain, road conditions were extremely dusty – but good.

DETACHMENT DIARY

October

- 2 Advance party consisting of OC detachment and 5 OR's left NAIROBI.
- Main convoy followed 6 hours later.
- 3 Advance party arrived LODWAR
- 4 Advance party prepared base camp for main party which arrived at 1730 hrs.
- 5 Stores unloaded
- 6 Work started on building kitchen and shower bath. Wireless station was set up, and some technical training in astro carried out. Started to check Chronometers.
- 9 Party one left to PIR MOGILLA
- 10 Spares sent to party one held up at KAKUMA.
- Party two left to establish 89/A/78 at FERGUSON'S GULF.
- 13 Visit to Party Two at FERGUSON'S GULF
- 16 OC Sqn visited detachment by air en route for KAPOETA and discussions with SUDANESE authorities.
- 17 Visit of OC detachment to FERGUSON'S GULF with DC LODWAR to meet University of MIAMI Marine Survey Party in "Lady of the Lake".
- Americans do NOT materialise due to bad weather on the EAST side of Lake.
 OC detachment returned to LODWAR.
 Party 2 returned having completed 89/A/78.
- Supply Convoy leaves for KITALE.
 Tested LODWAR water supply for DC and chlorinated swimming pool.
 PARTY ONE returned, having completed MOGILLA.
- 22 Convoy returned from KILTALE.
- 23 OC detachment and Party 2 left for ETHIOPIA to PIR Mount KORAZ (NAKUA) and established 89/A/104.
- 24 Party 2 entered ETHIOPIA
- 25 Cfn MULGRAVE (REME) CASEVAC with undiagnosed fever.
- Party 1 left to establish 89/A/79 KOSEKRIA
- 28 Party 2 left ETHIOPIA
- 29 Party 2 returned to LODWAR
- Convoy from NAIROBI arrived with DAD Survey and OC Squadron.
- 31 Party 1 returned having completed 89/A/79 (KOSEKRIA).

November

- Soccer match against LODWAR UNITED lost 0 3.
- 2 OC detachment and party left to climb PELEKECH
- 3 DAD Survey and OC Squadron left on recce to LOKITAUNG
- Party returned from PELEKECH, DAD Survey and OC Squadron returned. 4
- 5 DAD Survey, OC Sqn and convoy left for NAIROBI. Spr O'Donoghue left for NAIROBI or X-ray to wrist.
- OC detachment with Party 2 left for SUDAN. 6. Party 1 left for KORTEN, 89/A/105
- Spr FEARON granted compassionate leave to UK 8
- 9 Party 2 reached LOELLI fort.
- Spr FEARON flown from LOKICHOGGIO to NAIROBI 10
- Signal for spares received at LODWAR from LOELLI. 12
- 89/A/102 LOGOLE established by Party 2.
- 13 OC detachment met DC KAPOETA at LOELLI.
- 17 Military Coup in SUDAN. No wireless contact with OC detachment.
- Party 1 returned, having established 89/A/105 KORTEN. 19
- Party 2 played basketball with garrison at LOELLI. 20
- OC Squadron flew to LOELLI with spares.
- 24 Heighting carried out along LOKITAUNG road from DODWAR.
- Heighting carried out along LODWAR FERGUSON'S GULF road. 25 Convoy left for KITALE
- OC detachment and party 2 returned from SUDAN. 26 Convoy returned for KITALE with Spr O'Donoghue.
- 28 Party 1 left to establish 89/A/81 LOTAKIPI.

December

- 2 Party 2 left for ZINGOUT, 89/A/106
- 3 OC detachment with Party 3 left to PIR LOKWANYA Sgt McVEAGH left with DC to recce PUTCH area.
- 3 Party 1 returned having completed 89/A/81 LOTAKIPI.
- 4 DC returned from PUTCH. Cpl PERCIVAL with 3 ORs and 2 vehicles left for NAIROBI.
- 7 OC detachment returned having completed PIR LOKWANYA and KAPUA.
- Visit of Engineer-in-Chief, Major General H. H. C. SUGDEN CB. CBE. DSO. There was a Guard of Honour 10 and inspection of base camp. Sundowner in the Mess in the evening. Party 2 returned having completed astro point at foot of ZINGOUT but having been unable to climb the mountain itself.
- E-in-C flies round TURKANA and leaves for NANYUKI in the evening. 11
- 12 Began loading convoy for return to NAIBOBI.
- 13 Capt LINLEY arrived from NAIROBI.
- 14 Main party left LODWAR
- 15 Rear party left LODWAR
- Main party arrived NAIROBI
- 16 Rear party arrived NAIROBI

PART IV

RESULTS OF THE OPERATION

1. Completion

All the astro stations required were observed with the exception of 89/A/103 which lay in an area of thick bush in the SUDAN. Moreover, the photos covering this area were observed by thick cloud. It had been hoped to place 89/A/106 on the peak of Mt ZINGOUT but due to the difficulties of the country a point was established at the base of the hill.

2. Results

The bare resultant astronomical co-ordinates of the stations with their probable errors are attached at appendix 'Ε'.

3. <u>Photo annotation</u>

This has been completed wherever possible. One large area to the WEST of LODWAR around Mount FUTCH is outstanding and is to be completed by means of an extended donkey safari in the near future. The remainder of the photos which are still unannotated cover: -

- (a) The LOTAKIPI swamp uninhabitable and totally devoid of annotatable features.
- (b) Some parts of the SUDAN around LOKOMORINYANG.
- (c) Areas, particularly in the NORTH where cloud has obscured all detail.
- 4. <u>Heighting</u>
- See Appx 'F'
- 5. <u>Name Collection</u>

All names so far collected have been on photographs. These have been transferred to the SGPN form SGPN 1 and will be sent to L WHITEHOUSE Esq ex DC LODWAR for expert advice on spelling and translation of TURKANA names.

6 <u>Effort involved</u>

Gross effort was an average of 22 men for 11 weeks. The average working week was 70 hours. Total for the task is then approximately 17,000-man hours.

PART V

ADMINISTRATION

1. <u>Health</u>

The health of the detachment remained good. This was due to:

- (a) A regular supply of fresh fruit and vegetables bought locally with a grant from the Squadron PRI.
- (b) Occasional fresh meat and fish from Lake RUDDOLF when the parties returned from the field.
- (c) The provision of a shower bath and also the use of the LODWAR swimming pool.
- (d) The comparative absence of mosquitoes and flies from LODWAR due to the lack of water in the river TURKWELL.
- (e) The help afforded to the detachment by the African dresser at LODWAR.
- (f) Strict insistence on Camp Hygiene.

2. <u>Casualties</u>

- (a) A REME Cfn was CASEVAC by air from LODWAR on 25 Oct with an undiagnosed fever.
- (b) One Spr returned to NAIROBI on 5 Nov with a broken wrist. He returned on 26 Nov.
- (c) On return to NAIROBI one survey Corporal was admitted to BMH suffering from yellow jaundice.

3. Welfare and Sport

- (a) The detachment made extensive use of LODWAR swimming pool.
- (b) The detachment raised a football team to play LODWAR UNITED. Football was only possible when all parties were in base camp.
- (c) A table tennis table and darts board were brought up from NAIROBI.
- (d) Members of the SUDAN party were able to play basketball at LOELLI.

4. <u>NAAFI</u>

The detachment had its own canteen supplied from NAIROBI every fortnight. Only once – for one day only – did the detachment run out of beer.

- 5. <u>Mail</u>
 - (a) Mail was sent up twice a week although the arrival of the second delivery was somewhat unpredictable. In addition, mail would sometimes arrive by air when an aircraft visited LODWAR.
 - b) Outgoing mail was normally collected once a week and accepted prestamped by the Army Post Office without passing through the Squadron HQ.

6. <u>Food</u>

- (a) The detachment lived on Composite Rations. At first the supplies drawn contained an equal number of each type of pack. In NOVEMBER however permission was given to detachment to draw only those types of pack which are suitable for the hot climate obtaining in the NFP.
- (b) The PRI of 89th Field Survey Squadron allowed the detachment £15 a month, the larger proportion of which was spent on fresh fruit and vegetables. These were ordered fortnightly through the local DUKA. Occasionally a sheep was purchased for fresh meat.
- (c) Fresh fish was sometimes available from LAKE RUDOLF.
- (d) The construction of a field oven and some imagination on the part of the cook, improved the variety of the food prepared. Bread was baked daily.

(e) Careful consideration of times for meals ensured that personnel were hungry when food was prepared, since it has been found that in a hot climate the normal appetite may become distempered.

7. <u>Discipline</u>

The OIC detachment could not be given disciplinary powers of a detachment commander. These were, however, NOT required.

<u>PART VI</u>

COMMENTS BY OFFICER IN CHARGE OF OPERATION

1. <u>Survey Equipment</u>

- (a) Barometers: As mentioned in Part IV (and see Appx 'F') the 4½" Barometers proved quite useless. It is suggested that a more useful instrument would be the Wallace & Tiernan Barometer. 7,000 feet is a low ceiling for Survey work, particularly in EAST AFRICA.
- (b) Stereoscopes: Although the small stereoscope is sufficient for the use of parties operating in the field, it would be a great advantage in future parties to have one of the larger "UNIVERSAL" stereoscopes in the base camp.

2. <u>Communications</u>

- (a) Main link: The detachment used the Kenya Police wireless system for message to and from NAIBORI, and on the whole this worked very well.
- (b) Subsidiary link: Communication between base camp and field parties was by means of A510 wireless set. These proved to be totally inadequate for the task they were expected to do. The average distance of field parties from the base was 150 miles. Under ideal conditions the A510 has been known to be effective up to 100 miles. But success at this range demands conditions which cannot always be obtained, say, in thick bush. Members of the field parties had been trained in the operation of the sets before leaving NAIROBI and failure to maintain communications is not attributable to a want of trying or lack of experience. Unreliable communications and indistinct messages in the field are worse than no communication at all, and for field parties to maintain a regular and intelligent wireless net demands a more powerful set. Given reasonable communications a great deal of time and energy could have been saved.

3. <u>Photographs</u>

The quality of the photographs covering SUDAN in particular was very poor. There was much cloud – obscuring a whole mountain range and the prints themselves were not of the best. Once again it is to be doubted if the scale (1:80,000) is not too small for accurate results to be obtained.

4. <u>Supplies</u>

A great improvement in the supply system for the detachment was very welcome feature. MT spares particularly were indented for by radio and the detachment was never held up for want of spares to keep vehicles on the road.

5. <u>PRI Grant</u>

This innovation, which enabled a constant supply of fresh fruit and vegetables to be supplied to the detachment, was of great benefit to the health of all personnel and should at all costs be continued for future base camps – and independent field parties if practicable.

6. <u>Aircraft</u>

One operation during the lift of the detachment (see Appx 'A') could have been completed in one sixth of the time with one half of the cost, had it been possible to utilise the advantages afforded by Air Transport. On the administrative side, the aeroplane is now recognised and used for CASEVAC and compassionate leave cases. In TURKANA the light aircraft of the KENYA POLICE AIR WING are extensively used by the Local Administrative for routine work.

(a) <u>Reconnaissance</u>

Had aircraft been used for an aerial reconnaissance of TURKANA before the groundwork was commenced, many of the difficulties facing the field parties could have been obviated, For instance:

(i) Some points have been required in positions which have proved inaccessible when the party has approached them to establish the point, this has entailed unnecessary time, effort, expense, and vehicle wear & tear e.g. ZINGOUT.

(ii) Some points have been required in positions where the nature of the ground precluded any chance of an accurate PIR eg 89/A/103 in SUDAN.

Reconnaissance by light aircraft would have been invaluable and an astro scheme with rough point positions selected from the air with consequent knowledge of ground conditions from say 500 ft, would have provided a far easier task for the field parties on the ground.

- (b) <u>Actual Survey Work using aircraft</u> The advantages with a helicopter here are obvious and have been used with success in other parts of the world. In TURKANA there is a network of landing strips regularly used by the Kenya Police. Even the use of light aircraft in conjunction with these facilities would have eased the task considerably.
 (c) General
 - Areas similar to TURKANA are difficult to traverse with vehicles even if they are fitted with fourwheel drive. The police themselves have discovered that camels and mules are often more useful, and field parties do occasionally use these instead of vehicles. In other parts of the world, the army is entrusted with the survey of areas similar to TURKANA. It would be unfortunate if short term financial considerations were to outweigh the very great advantages which increased use of aircraft in these areas can offer to Military Survey.

28 Dec 1958

M J H OGDEN 2lt RE NAIROBI

APPENDIX 'E'

COMPLETED TECHNICAL WORK NORTH TURKANA OCT-DEC 1958

1. Astro points

89/A/782	FERGUSON'S GULF	03° 29' 25.5" N
	(New point)	35° 52' 51.3" E
89/A/792	KOSEKRIA	03° 31' 18.0" N
	(New point)	35° 21' 44.1" E
89/A/81	LOTAKIPI	04° 13' 00.6" N
		34° 34' 31.8" E
89/A/102	LOGOLE	04° 49' 33.7" N
		34° 35' 27.4" E
89/A/104	KORAZ SOUTH	05° 03' 53.0" N
		35° 53' 08.0" E
89/A/105	KORTEN	04° 10' 32.8" N
		34° 07' 02.3" E
89/A/106	ZINGOUT RANGE	03° 56' 02.0" N
		34° 32' 30.3" E

- 2. PIR
 - AV 51 LOKWANYA (N) ATABA
 - D23 TRI JUNCTION NAKUA MOGILLA PELEKECH (checking only)

3. Photo Annotation

Approximately 2,000 square miles of the area have been annotated.

APPENDIX 'F' REPORT ON HEIGHTING CARRIED OUT IN NORTH TURKANA OCT – DEC 1958

1. Intention

The original intention was to carry out heighting by barometer traverses, using $4\frac{1}{2}$ " barometers. The barometers were calibrated in the workshops before the party left NAIROBI and were then sealed in a stationary box. As the barometers are designed only to read to an altitude of 7,000 feet and the road climbs to an altitude of over 9,000 feet, this precaution was necessary.

2. Failure of Barometers

Unfortunately, the sealing did not prove effective and when the barometers were first used, it was quickly discovered that large differences in readings were given by separate barometers under the same conditions. These differences, after being adjusted for calibration, were as large as 300 feet.

3. Revised method

After much consideration it was decided that no reliable results could be obtained from this source and a different method of heighting topographical features was adopted. Although not as satisfactory as would have been liked, the new method will certainly prove to be more accurate than the barometers.

The new method relies on the fact that TURKANA consists of a large area of flat plain at a constant level, with mountains rising from it. From a point, easily identifiable on-air photographs and at approximately plain level vertical angles were taken to surrounding topo features identifiable on the photographs. The points were recorded on the reverse of the photos. The horizontal distance between the observing station and the chosen points can be determined using the scale of photography and thus the difference in height between the points can be deduced. This work was carried out in certain areas around LODWAR and should prove very useful.

APPENDIX 'G'

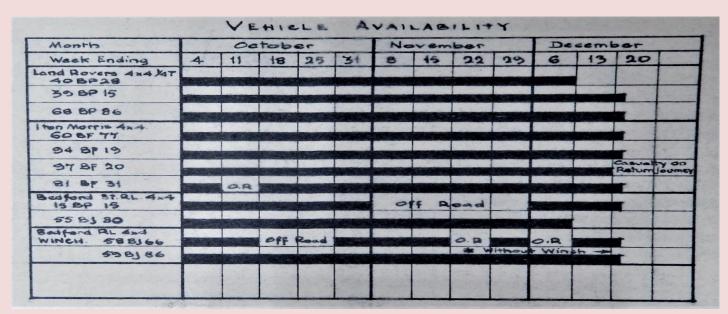
1. Vehicles

Vehicles used in the task were as follows: -

- 3 Land Rovers ¹/₄ Ton 4 x 4
- 4 Morris 1 Ton 4 x 4 GS
- 2 Bedford RL 3 Ton 4 x 4
- 2 Bedford RL 3 Ton 4 x 4 (with winch)

MT

2. Vehicle Availability Chart



3. MT Spares

Frequent supply convoys from NAIROBI enabled MT spares to be supplied in reasonable time without delaying the movement of the field parties. The larger parts of the Squadron MT stores were kept at LODWAR, Due to the non-availability in EAST AFRICA of the correct transfer box for a Bedford RL with which the vehicle concerned lost the use of its winch during the later stages of the task and this could have proved an embarrassment.

4. Chief Faults

Due to the uneven nature of the terrain, the chief fault occurred in the transmission and suspension. In addition. the necessity to cross areas of lava rock again accounted for a high wastage of tyres. The passage of thick bush country in the absence of roads, caused superficial damage to body work on several vehicles.

5. Repairs in Base Camp

The presence of a REME AII Vehicles Mechanic permanently in Base Camp to supervise and coordinate vehicle repairs was invaluable. A programme of regular inspections was strictly adhered to, and this resulted in vehicles remaining in good condition throughout the twelve weeks of the detachment.

6. Equipment

There is a need for the issue of 'Tanganyika' Jacks to the field parties. The small jack normally forming part of the tool kit is insufficient when the need arises to fit new springs under field conditions. 'Tanganyika' Jacks are used extensively by KENYA POLICE and the Local Administration and are easily transportable. Much time would be saved if one of these jacks was made available to each field party.



(Transcribed by Noel Grimmett in February 2020)

LODWAR KENYA

A Trip to Borneo

By Frank Johnstone

In early 1965 whilst serving with 22 Squadron, 42 Survey Engineer Regiment at Barton Stacey, I submitted my application as a volunteer for a six-month detachment in Borneo to run a map store. I had just turned 20 and was a Lance Corporal having been at Barton Stacey since 1963. I had no idea where Borneo was and was extremely happy to find I was the lucky one selected for the tour.

It was then I found out that I would first of all spend a few weeks with 556 Field Survey Depot, the map depot colocated with 84 Squadron in Singapore, to learn the necessary skills to run a map store in Brunei, (where's Brunei?). I had not long been engaged to Marilyn so had to make up some story of been posted (didn't volunteer!!) to the Far East.

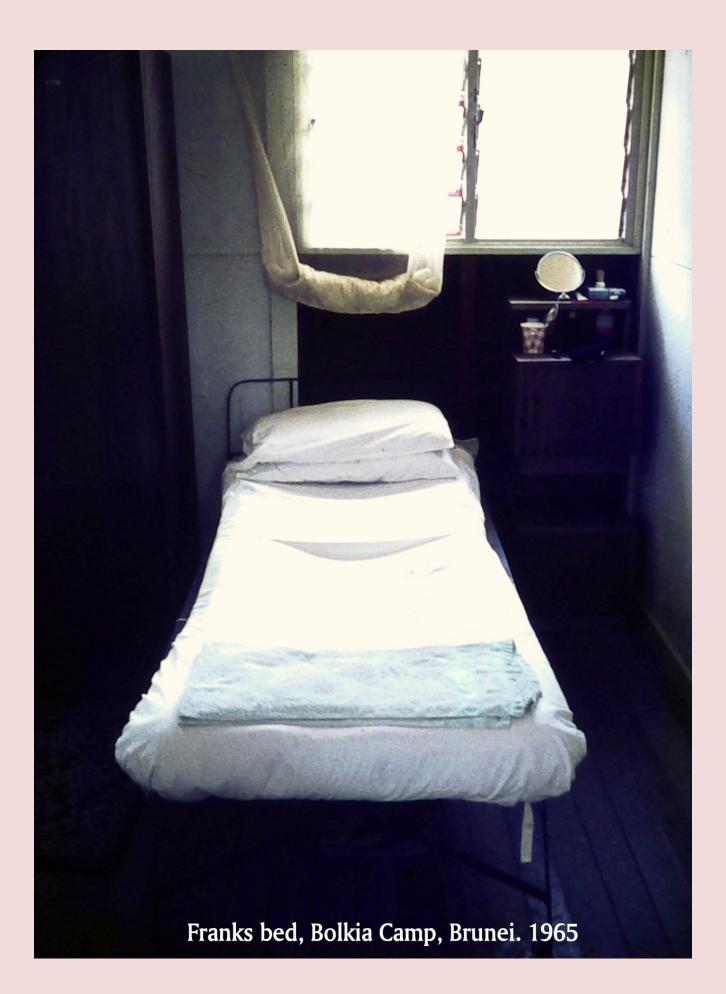
I flew out from Heathrow in May 1965 stopping to refuel in Istanbul, Bombay and Colombo (Sri Lanka) before landing in Singapore 28 hours later. I then spent a few weeks being trained by the depot staff on the basic skills of ordering, accounting and all other related topics to running a Map and Air Chart store, which was something very different to me having been trained as a Photo Tech. Training completed, I was then given the OK to travel to Brunei.



British Eagle Britannia refuelling in Istanbul May 1965

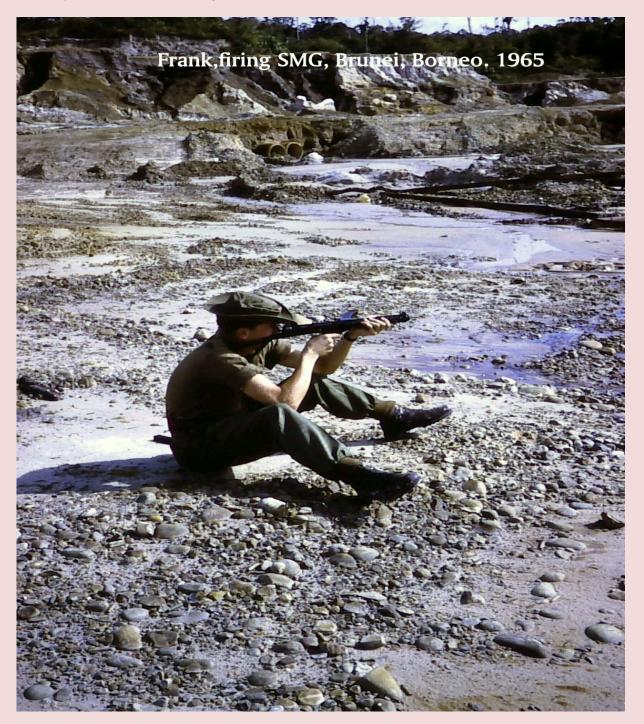
The first stage of my journey was from RAF Changi, flying in I think a Valletta, to RAF Labuan, a small island off the coast of Brunei. The first person I saw on landing was an Iban tracker, who worked for the British Army and seeing an army issue padlock hanging from one of his ears made me think, what had I volunteered for. I was then told to report to the pilot of a small Army Air Corp plane, a Beaver, and then started my most enjoyable six months in Brunei.

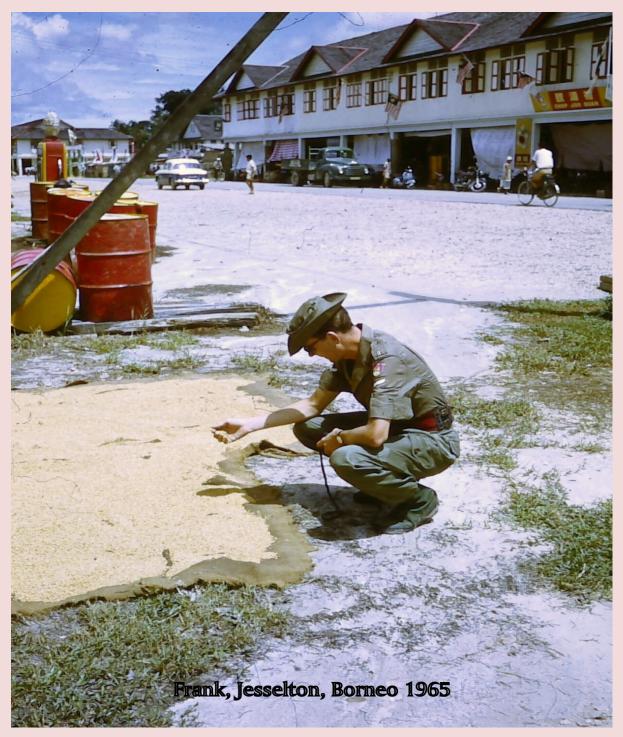
I was attached to the Intelligence Corps, part of 51 Gurkha Infantry Brigade Group, Bolkiah Camp. I had a small map store to run and maintain, keeping up the necessary stocks of up to date mapping which was supplied to me from the Map Depot in Singapore and had a Sapper draughtsman (not Survey) working with me. My mornings started with 'morning prayers', which was a briefing by my troop commander, an Int Corps Lieutenant, and this brought us up to date what had happened the previous night. This was during the '63 to '66 Confrontation against Indonesia and people were being killed. I seem to remember doing lots of guard duties in the camp, and doing a 2-hour stag in the early hours of the morning, on your own, was sometimes a little unnerving and would always enjoy the company of one of the camp dogs which would stay with you as long as you had something for them to eat.



On one occasion having procured a large map order and making up a large wall map, the WO2, who was in the Para's, said he was very impressed the way a young lance corporal provided such a good service and offered to take me on the square for some drill as a thank you. I was never sure if he was joking, but somehow, I managed to tactfully decline his kind offer.

One of my contacts in the area was an RAF corporal who worked in RAF Labuan and was involved in photography and mapping. One day he invited me back over to RAF Labuan which I accepted. He arranged my flight back to the island, getting a lift in a General's plane, who lived in Brunei but worked in Labuan. When I arrived there the corporal had arranged flights for me in two different helicopters (Wessex and a Sioux) and a fixed wing aircraft (Twin Pioneer) so that was a day I remembered for a long time.





During my time there I also kept in touch with two of my Chepstow colleagues who were stationed with 2 Troop, 84 Squadron in Tenom, Sabah which was about 180 miles north east of Brunei. When I found out one of them was getting married in Tenom I was asked if I could make it up to there for the wedding. A plan was then devised that there was a need for some classified mapping to be sent to Tenom but this had to be delivered in person, so I made up a bundle of maps put them into a map tube, placed some suitable labels on the outside and there I was flying up to Tenom, via Jesselton, then onwards by train. I had 3 or 4 great days in Tenom and was always very grateful for the idea about the 'classified maps' which came from the Troop Staff Sergeant in Tenom.

Sadly, my six months tour soon came to an end and in December 1965 I was back in Singapore for a few days before flying home to the UK and onwards to Barton Stacey. I made some very good friends in Brunei and always considered myself very lucky to have been the one selected for such a great posting. My first trip abroad was to be very memorable.

Memory Stir

Mike Stanbridge has mentioned that he sometimes gets a Memory *Stir* after reading a particular article in the newsletter. He feels that he can't be the only member who has memories of a person or event and wonders whether it might be worthwhile having a 'Memory *Stir*' section in the Newsletter. I wish to thank Mike for his suggestion, and I am pleased to publish the first contributions to this new section. I hope you enjoy them?

Memory Stir No 1 – Mike Stanbridge – Posting to Ethiopia

The article, by Sgt John Phipps, in the 2020 Spring Newsletter triggered a few memories. It was, indeed, edited by myself as I was not only SO3 Svy 1a at the time and responsible for the careers and postings of Mil Svy soldiers but also, being an ex-part time journalist during my college days, had been given the responsibility by Gen Mike Sexton of reviewing and editing much of the Mil Svy Newsletter!

Being responsible for soldiers careers and postings I well remember the selection and monitoring process for those particular type of secondments, to DOS and the likes thereof, that were imposed on me by SO1 Svy 1 (Lt Col Mike Silberrad) to ensure we chose the right man for the right job to maintain our professional status with third parties.

The process included scrutinizing, and questioning whenever necessary, the role and responsibilities stated by the third party, the accompanied/unaccompanied appointment against marital status and any family responsibilities, tour duration, living conditions and the candidate's past overseas experience as well as their technical capabilities. Potential candidates, after questioning their current employing officer, were then asked to attend an interview at D Mil Svy, Feltham (as Alan Gordon will remember prior to me posting him to BRIXMIS Berlin) before final selection and sending a draft posting order to the RE Manning & Record Office. The latter was then located in Brighton which I always tried to visit frequently because of its seaside location and lunch on the esplanade with my civilian counterpart!

In John Phipps case, having only just taken over my job in in Aug '74, I recall the Derg (a Soviet backed military junta) overthrowing Emperor Selassie the following month and thus my questioning the real need to send anyone to Ethiopia at that particular time because of the unrest. However, following further consultation with DOS it was decided that the posting of John Phipps would stand, and I remember a quip, from either Simon Fraser (SO2 Svy 1a) or Mike Silberrad, that at least the new Ethiopian Government was a military one now so John and family should be well protected and safe!

Memory Stir No 2 – Mike Stanbridge – Chris Robins

I was so very sorry to read about Chris Robbins' demise last year, but I remember Chris arriving in 14 Fd Svy Sqn, Ratingen immediately following his commissioning in 1974 as I was the Squadron's 2IC at the time under Maj John Eady.

He turned out to be an excellent and well-respected officer, but I recall an amusing incident with him a few days before the very first Officers Mess Dinner night that he was due to attend in his new attire. Sitting in my office, catching up with the normal admin' and Imprest accounting work, Chris entered and surprisingly closed the door quietly behind him after ensuring that no one was watching him come in.

He then said, "Can I have a few quiet words" and I replied "Yes, of course. Take a seat." I've got a real problem he said, I've just unpacked my new officer mess kit with boots and spurs and tried to put them on but having real difficulty. How do you do it?

I then explained that you strap the boots on to the tight-fitting overalls first, then slot the spurs into the boots before rolling the overalls over the boots, putting on the boots and pulling up the overalls.

He looked shocked and said, "you're joking". I promised him I was not and that it was not April Fool's Day! However, it all worked out because he came in the following morning and said thank you for the instructions, I had given him. I remember replying that it would probably take him longer than the rest of us to put them on because he was so much taller with longer legs to pull up the overalls. To make him feel better I said that I always had more difficulty taking off the overalls, boots and spurs after a dinner night when I was, perhaps, a little inebriated after too much port.

Memory Stir No 3 - Noel Grimmett - Army saves the Navy

To set the scene – the place Oslo, the year 1979, the time of year was early winter with snow and ice and temperatures at least -10 C.

The occasion was a typical Saturday night at the Senior NCO's club at the NATO base at Kolsas – a regular disco event. It so happened that the Standing Naval Force Atlantic (STANAVFORLANT) was visiting Oslo, which normally consisted of 4 to 6 destroyers and frigates, and some of crew of the British vessel had been invited to the club.

It was common practice at that time of year to walk or taxi to and from Kolsas, if the intention was to drink. For those that don't know the Norwegian drink drive regulations are extremely strict. One pint is regarded as too much and can get you a ban if caught. A friend on the C-in-C's cabin crew was caught and instantly sent back to UK with his family, having not long arrived.

To continue - The club was closing so I set off for home equipped with parker and snow boots and by chance came upon an individual sitting on the pavement mumbling to himself. I stopped to enquire although as I assumed he was a Norwegian doubted I would get an intelligible response - although English is widely spoken.

However, it soon became clear that he was a Brit from the naval contingent and seriously intoxicated and was not dressed for the climate, being in light clothing. It was obvious that if I left him he would suffer from the cold and may even freeze to death.

So, I managed to hail a taxi, which was fortunate in the early hours of Sunday and got him down to the Oslo docks where having sobered up a little he managed to identify his ship. I then returned by taxi to Jettum where I lived.

Later, on the Sunday morning I bumped into an RAF colleague who was heading into Oslo, having received an invite to the PO's mess on the British warship, and he asked if I would like to join him – which I did. We took the Tric (tram) into town and made our way to the ship and were invited aboard.

We were enjoying a drink in the mess and my colleague was relaying what had happened to me previously and the cry went up Oh! "*We wondered how he had got back to the ship*". Apparently, the chap had got into an argument with friends in a taxi, which had then stopped, and he had been bundled out onto the road and left.

The Chief Petty Officer on hearing what had happened summoned the individual concerned and gave instructions, one - to thank me for my assistance and two - to get his cheque book and reimburse me for the taxi fare. This he duly did!!

Memory Stir No 4 – Jack Crompton – Mrs Wells

We had just arrived at the place in Germany where we were to stay in a tented camp for the week's duration of the Survey Exercise that we were on. One of my friends had come straight from his honeymoon, back to Germany, taken over a quarter that morning, said goodbye to his new wife, then driven up to the exercise area to join us. The Troop Commander had asked his wife if she could make sure that the new bride was alright, having been deserted in a strange land with a foreign language. She would probably not know where the British shops were or how to get to them and not knowing anyone at all. To this end the Commanders wife asked him what was the girls name so she could approach on a more friendly bases.

The Commander stepped out of the control vehicle saw the new groom over the other side of the camp and shouted "Corporal Wells, what's your wife's name?" back came the answer in a loud voice, ringing with pride, "<u>Mrs.</u> Wells".

Editor's Note: I will be delighted to receive members 'Memory *Stirs*' of which I am sure there are many humorous or unusual events within the Survey community??

Notification of Deaths

Geoff Hancock

We have recently heard from the sister of Geoff Hancock, that he had passed away quite peacefully at his home in Chippenham where he had lived for some years. Geoff, a cartographer, had been a member of the branch from the beginning and those that knew him will well remember his pronounced West Country accent. He retired in 1973 as a WO1, possibly directly from Survey Production Centre BAOR, where he was also remembered with affection by many of the civilian staff.

Paul Johnson

It is also very sad that the following message was received from Kevin Hindle via Facebook - I can confirm that Paul Johnson died today, 21 March, which had also been confirmed by Stephen Kenny who was informed by Rowena, Paul's wife. May he rest in peace! It is with great sadness that it appears Paul died from the effects of the Coronavirus. Paul was a member of 72c Chepstow, and it is believed he was a Photo Tech.

Stanley J Humphrey

Maurice Friend has advised us of the death of Stan Humphrey in Australia last July, age 93. He mentioned the death of Stan Humphrey to an ex-work colleague who was taught by Stan. Here is his reply – "I always knew there was an ulterior motive for learning Multiplex". The incident he was referring to was probably in Egypt. "Thanks for the information that Stan passed away last year. I often thought about him and wondered how he was. He was at University of Queensland (UQ) when I was a student there and he always had lots of interesting stories from his travels. You have probably heard all the stories but one which comes to mind after reading your article is when he was going somewhere (Middle East, Africa?). He said they got in behind the Multiplex tables in case of trouble, reckoning the heavy steel would protect them. At that time UQ were still using a Multiplex for education and training so being in the room probably prompted the story". (Details of Stan's career were first published in the Summer Newsletter 2017 page 7)

Stephen Anderson

18th June 1950 - 2nd May 2020

Alan Gordon told me that Jill Anderson had asked Scouse Bradshaw to put the following notice on the BRIXMIS Facebook group. For all of you that knew this wonderful man it is with much Heartache that we say goodbye. RIP my darling Husband, you were and always will be the BEST! Alan Gordon wrote - *Very sad news as Steve was a great guy* – a sentiment that I also echo. Steve retired as a Carto WO1, and was also a Branch Member.

Brian Beale

Details of Brian's funeral were included in the COVID -19 Newsletter No 3 - June 2020.

Keith Pope

Malcolm Knight advised us that Keith Pope had died on the 9th May 2020. Keith was a member of the Branch, who many will remember for his 2 tours in Iraq in the period of 1954/59 with 19 Topo Sqn. He recently died in hospital following a stroke. His wife, Carolyn, forward more about Keith's life in due course. He will be sadly missed by Malcolm and friends.

We have just been notified that Margaret the wife of Maj Gen Mike Wilson has died following an illness and Duncan Jacobs, married to Maggie Jacobs (ex-head of DGC) has also died following a prolonged illness.



LCPL ALEX HILL - A GEO SOLDIER - Update

The fundraising to provide the young Geo Soldier, LCpl Alex Hill, with a recumbent bicycle to further aid his recovery and provide some modicum of independence, after suffering a catastrophic stroke during 2018, leaving him with severe limitations to his right arm and hand, and cognitively, which has resulted in him being medically discharged this month (June), has *reached the target required*.

The 42 Engineer Regiment Geographic RSM, WO1 Luke Townsin, would like to pass on a huge thank you to all those generous members of the Mil Svy (Geo) Branch who have donated money to this worthwhile cause and asked me to let them know that any additional money will be used to purchase additional cycling equipment (GPS, helmet etc) and a Concept 2 indoor rowing machine, that will prove extremely beneficial to Alex's recovery and will allow him to train for future Invictus Games trials. Anything left will go to a charity of Alex's choice.

The HQ REA donated £1,000.00, our Branch members donated £1,840.00 and the 'Just Giving' Facebook page raised $\pm 5,047.00$ making a grand total of $\pm 7,887.00$.

The RSM was not able to confirm a date yet for when the eqpt will be presented to Alex however, he proposes that members of the Regt and the Mil Svy (Geo) Branch are involved on the day – Details to follow.

Branch Secretary's note: -

To ask the Branch Members for a donation in the way we have done for LCpl Alex Hill, was not taken lightly by your Branch Committee. We fully appreciated there are many really good causes for you to consider opening the personal vault for, especially in these current strange times. And the Branch TOR also clearly state,".....and *coordinate support to those in need*." However, it was felt that although this was a particularly good cause, at this specific time, it would not get a lot of support from the usual sources and therefore we should support a fellow Geographic soldier as Branch individuals. Thank you to those that recognised this and made a personal donation.

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The Defence Surveyors' Association Website

The Defence Surveyors' Association website, www.defencesurveyors.org.uk, has undergone a complete refresh over recent months to make the site more attractive, easier to navigate around the site, more relevant and easier to maintain. The site offers details of events, news items, access to past editions of the Ranger, a photo gallery of past events and seminars, an archive of historical documents, notification of DSA prizes, and links to other relevant web sites. For DSA Members there is a members' area that includes blogs, forums, and an archive of DSA documents.



Figure 1 - Desktop view of DSA website



Figure 2 - Smart Phone view

costs only £15 a year for individual membership.

To make the site widely accessible, it has been designed to function equally well on a computer or a smart phone. For those using an Apple or Android smart phone, a Wix App is available from their respective app stores. The App allows visitors to join as members of the website so they can browse the content, join discussions, and read blog posts (with the right permissions). It also allows updates to be pushed as notifications to members' phones, thus enhancing communication about and across the DSA. After downloading the App, enter the code **KIMWBV** in My Account>Join to access the website through the App.

To keep members informed, an RSS feed has been added for the DSA blog. RSS stands for Really Simple Syndication and it enables users to receive automatic updates when a new item is published. This information is fetched by a user's **RSS feed** reader that converts the files into the latest updates from websites in an easy to read format. Chrome users will need to install a reader, whilst other browsers may already include an RSS Reader. Once the RSS reader has been installed you can add the following link (copy and paste): https://www.defencesurveyors.org.uk/blog-feed.xml

Members of the REA are encouraged to take a tour of the site to see what is available. Whilst access to the DSA website is free, we always welcome new members. Application forms can be downloaded under the Membership tab and it

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Figure 3 - Wix App access to website

John Knight DSA Chairman