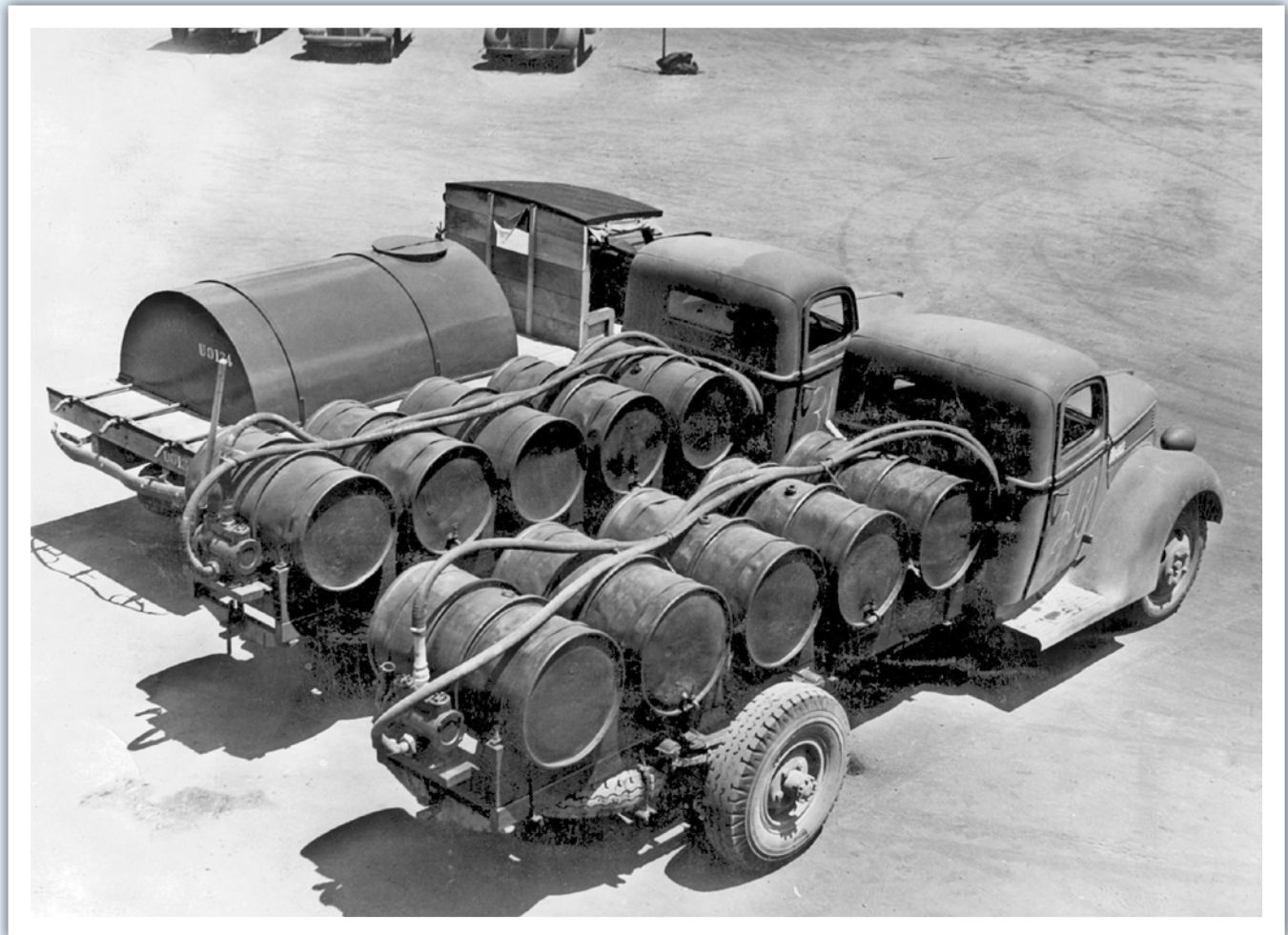


South African Military Water Diviners in Kenya during World War II



The South African Engineering Corps played an imperative role in keeping enemy forces at bay in East Africa during the Second World War by delivering critical infrastructure, including water. Article by Deon Visser.

Italy's potential entry of the Second World War in support of Germany created serious challenges for Britain and her allies in the Mediterranean, the Middle East and Africa. Italy could close the Mediterranean, while her air and naval forces based in Eritrea

and Italian Somaliland could also threaten Allied shipping in the Red Sea. In addition to capturing Egypt and the vital Suez Canal, Italy could furthermore try to take the Sudan, Kenya and Tanganyika, and even advance into the Union of South Africa.

The British military commitments in Europe and Egypt left them with hardly any resources to meet their defensive needs in East Africa. Britain consequently turned to the Union of South Africa to make up most of her shortfalls in East Africa. The Union Defence Force (UDF)

Proposed tank and drum type water carriers, SAEC (5 X standard 65-gallon (295 litres) petrol drums).

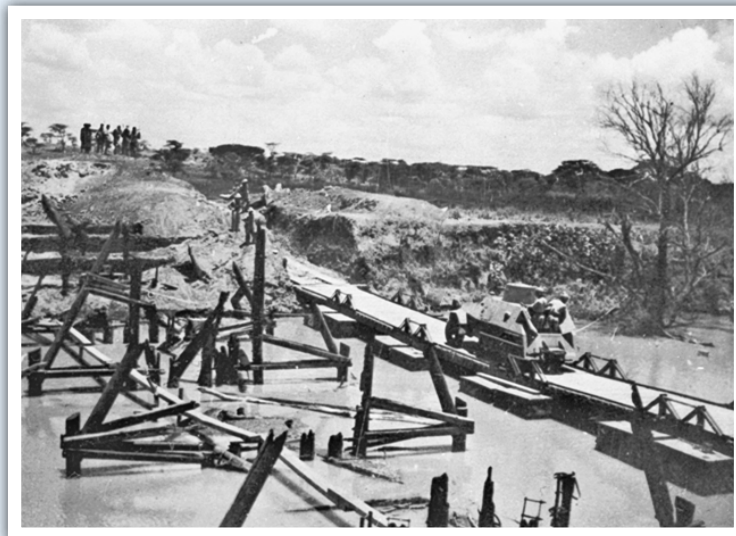
deployed the entire 1st South African Division, as well as several air force squadrons and various support elements to East Africa, including several units of the South African Engineers Corps (SAEC). The arrival of the South African forces enabled the British to take the offensive against the Italians at the beginning of 1941 and defeat them in less than five months. In this the SAEC played a crucial role because, as Neil Orpen observes in his book *South African*

Forces World War II, I: East African and Abyssinian Campaigns, East Africa's two most formidable military obstacles were a lack of water and roads.

Harold M. Fridjhon of the South African Department of the Interior's Bureau of Information strongly emphasised the defining role of water in African warfare in a manuscript he submitted to the *Outspan* in July 1943, stating: 'Water has always been the decisive factor in the strategy of African warfare'. From the earliest recorded wars... the design of African battles can be traced from waterhole to waterhole... And the advent of lorried infantry, masses of huge trucks, armoured cars and tanks has not modified the problem of water-controlled strategy; it has aggravated it. Today there are not only men to be watered but also machines... Under duress men can go for several... days without water, but radiators must constantly be kept full lest several thousands of pounds worth of fighting machinery become just so many tons of useless scrap.'

CRUCIAL ROLE OF SAEC WATER SUPPLY FUNCTION IN MILITARY OPERATIONS

The Kenya-Italian East Africa frontier covered approximately 2 000 km, much of which ran through unmapped, roadless and extremely arid areas. To conduct operations from Kenya against the Italians, the British were consequently completely dependent upon the South African Engineer Corps moving ahead of the fighting forces to create lines of communication for the latter to advance. The engineers had to develop water supplies, construct camps and depots and build roads, bridges and railways to keep the troops moving, to facilitate the flow of supplies and equipment to the front and to allow the evacuation of casualties to the rear areas. To carry out these tasks, the UDF established several highly specialised



Top left: A pontoon bridge constructed by the South African Engineering Corps at Bole, East Africa.



Middle left: South African infantry patrol in East Africa.



Bottom left: A standby flight of Fury aircraft, 2 Squadron, South African Airforce in East Africa. The runways at some airfields had to be sprayed with water to prevent the dust from choking man and machine.

SAEC units including road construction, motor transport, and survey and water supply companies.

Staffed mainly from the Department of Irrigation and the Mines

Department, who had worked together for 35 years to refine the location and exploitation of underground water in the Kalahari desert and other arid areas in South Africa,



Top: The crew of a SA Armoured Marmon-Herrington Mark II armoured car carrying out maintenance on one of its Vickers machine guns in East Africa.

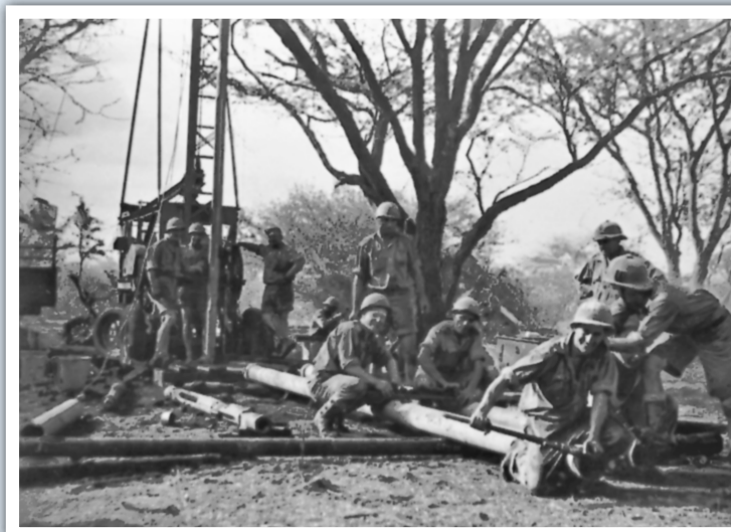
Above: Man, beast and machine competed for fresh water. In this picture a SA Armoured Marmon-Herrington Mark II armoured car be seen in East Africa, with cattle belonging to the local population in the foreground.

Right: Members of the 36th Water Supply Company, South African Engineer Corps sinking a borehole in Kenya, East Africa.

the 36th Water Supply Company and the 42nd Geological Survey Section brought much experience and highly advanced knowledge and equipment to East Africa. The 42nd Geological Survey Section located sites for boreholes, whereafter the 36th Water Supply Company moved in, sunk a borehole and installed pumps and pipelines. At the same time the Road

Construction companies built roads to allow the Motor Transport Companies to pump the water into tankers and transport it to the front.

The 36th Water Supply Company deployed its drills along the four important access routes to the Kenya Italian frontier, namely the Kitale-Lodwar-Lokitaung road, the road to Marsabit, which crossed the Kaisut and Chalbi deserts, the Wajir-Buna road and the road to Garissa. The engineers sank numerous boreholes along these routes, while they also cleared out and improved many existing wells, dug many new wells, built dams and purified water from several dirty lakes and waterholes. This resulted in a significant increase in the water supply in Kenya as the following few examples will illustrate: at Marsabit the SAEC raised the available water supply from about 27 000 litres per day to more than 236 000 litres per day within four weeks; at Laisamis the engineers struck water at 88 metres with a yield of 545 litres per hour, while a borehole sunk on the Habaswein-Muddo Gashi track yielded almost 2 000 litres per hour; and when the South African forces captured El Yibo in mid-January 1941, the engineers pushed up the yield of 450 litres of poor water per day from the local wells to over 84 000 litres of potable water per day in no time.



IMPACT OF WATER EXPLOITATION ON LOCAL COMMUNITIES

The British District Commissioner in the Northern Frontier District of Kenya appealed to the South African forces in December 1940 'that provision be made [at Marsabit] for allowing the natives their usual access (or alternatives) to water sources being taken over by the military authorities'. This request was motivated by both humanitarian and military motives, for the British could hardly afford to turn the local population against their war effort. The military needed Kenyan manual labour and recruits for the King's African Rifles.

Placing military needs first, the South Africans, however, sometimes denied the locals their usual access to water sources and directed them to alternative sources.

The SAEC indeed took the needs of the local population into consideration. Reporting on the available water sources around Marsabit, Major G.F. Newby recommended that 'The Village Well... be ignored because it forms the source of supply of the inhabitants'. He subsequently reported that the well was allocated 'only for [the] D[istrict] C[ommissioner], villagers and occasional small units'. Of the estimated 45 500 litres of water yielded per day by the springs at Tass the SAEC allocated 32 000 litres for military usage and 13 500 litres for 'native purposes.' Captain A.S. Posthumus recommended that the wells in the Segunti Valley, which was the main water source for the cattle at Marsabit, 'should be left for its present purpose unless [the] water supply position deteriorates to any great extent'.

Placing military needs first, the South Africans, however, sometimes denied the locals their usual access to water sources and directed them to alternative sources. Captain Posthumus, for instance, suggested that the wells in the Segunti Valley ‘may be able to carry the cattle which should be evacuated from Lake Paradise and Balessa Bangoli’ to make more water available to the military. At Woroma ‘arrangements were concluded with the Kenya Police that all camels be removed from this area and watered at Balessa Karauwi’. Such arrangements certainly inconvenienced the local population and disrupted their normal activities. The extent to which this happened might be revealed by research in the Kenyan national archives and interviews with survivors in the affected areas, as well as with South African veterans of the campaign in East Africa. Fieldwork in some of the areas in question is, however, not without risk as a result of the violence associated with cattle-rustling and piracy. People involved in these criminal activities are heavily armed with AK47s, hand grenades, mortars and other modern weapons, which make it somewhat risky for researchers to move around.

LEGACY OF SAEC'S ENDEAVOURS IN KENYA

Introducing a summary of Major E.W. Dohse's presidential address to the South African Society of Civil Engineers, the official news magazine of the South African Forces, *The Nongqai* of May 1943 states: “War, judged by normal standards, is a wasteful undertaking, but when peace comes again many men of the S.A. Engineering Corps will experience a feeling of satisfaction in the constructive work of lasting value which they have done during their war service. Since the epic days of the Abyssinian Campaign all South Africans have heard with pride of the achievements of our engineers.”

The wartime endeavours of the



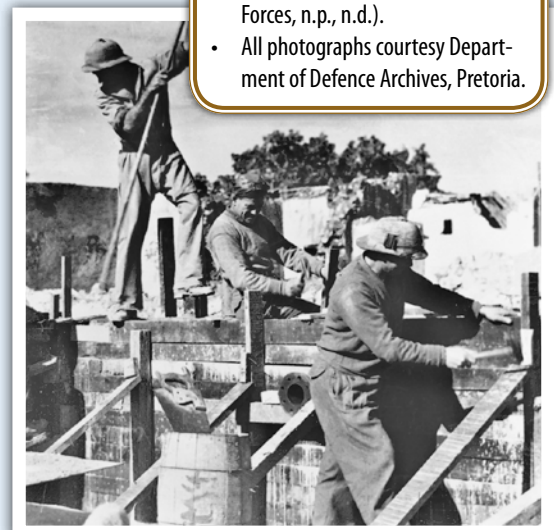
Above: Members of the 36th Water Supply Company, South African Engineer Corps, assisted by men from the South African Native Military Corps, lay a water pipeline at Benghazi, North Africa.

Below: Members of the 36th Water Supply Company, South African Engineer Corps, repair reservoirs damaged by bombs and shell fire.

SAEC indeed had lasting value for Kenya. The roads and bridges built by the SAEC provided the basis for the post-war development of Kenya's transport infrastructure. By improving the yield of existing sources, digging scores of new wells and sinking numerous boreholes in Kenya, often in places where no water was available before the war, the SAEC produced a significant increase in Kenya's available water supply. This, in principle, created some potential for post-war development. The question is to what use was this newly-created water supply put? Were the new or improved water sources in locations where they could be gainfully exploited for economic development? Again research in the Kenyan national archives and interviews with survivors in the affected areas may provide answers to these questions.

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Readers who are able to shed light upon the impact of the SAEC's water supply activities on Kenyan (or other African) societies during the war, and/or the post-war utilisation of the extra water supply created by the SAEC are kindly invited to forward such information to the Editor. Relevant photographs are extremely welcome. □



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- All photographs courtesy Department of Defence Archives, Pretoria.