

THE WAR IN THE DESERT

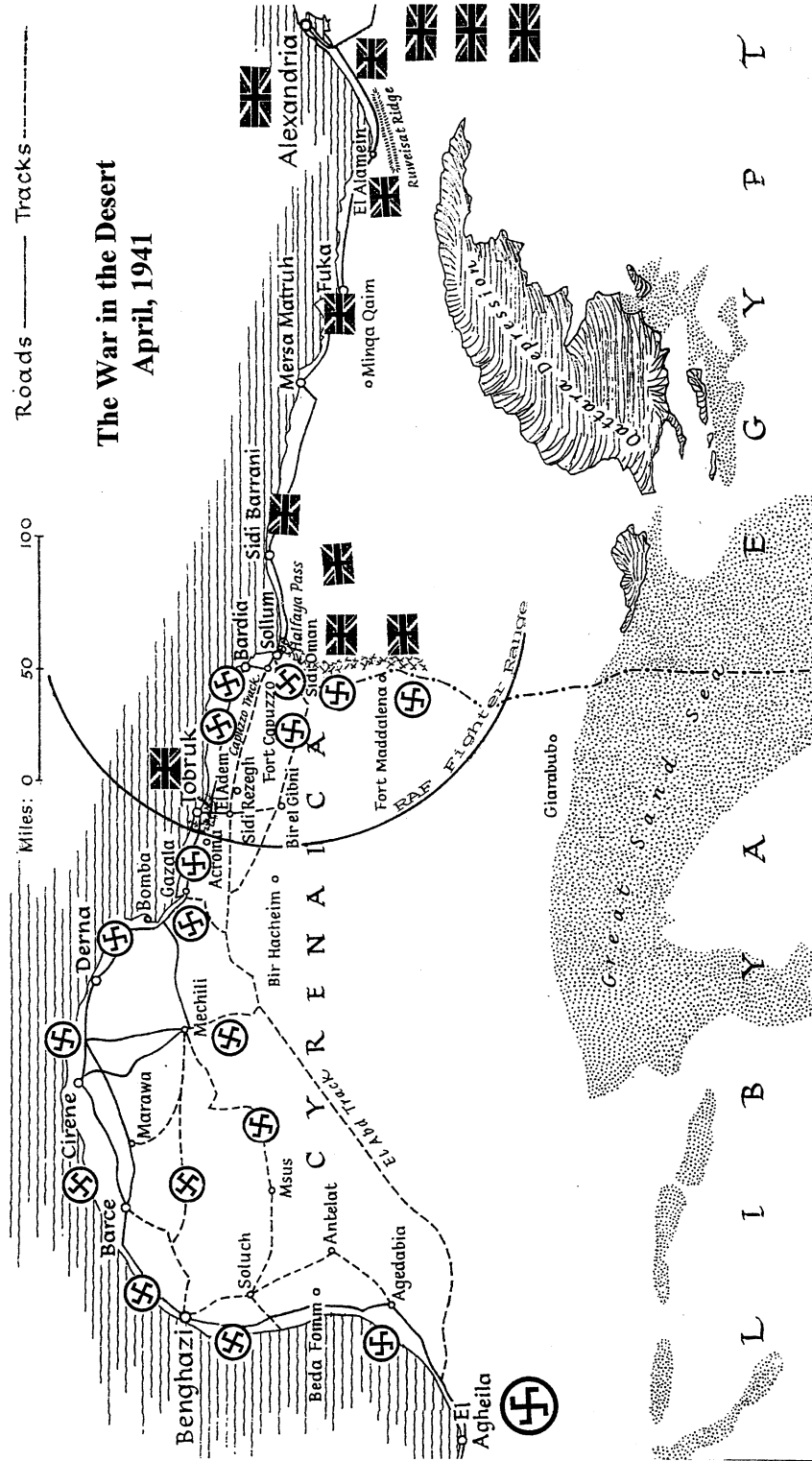
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Egypt, 1940 - El Alamein, 1942

In June, 1940, the Italian forces in North Africa consisted of nine regular divisions, three "Blackshirt" divisions, and two native divisions, a total of 250,000 men. Facing them, under the command of Sir Archibald Wavell, were 36,000 British troops. On the 7th of December the Western desert force struck, and by the 3rd of January the Italians had lost almost eight divisions and were in full retreat. The British took over 76,000 Italian prisoners. Wavell's army captured the major ports of Tobruk and Benghazi and pushed on to El Agheila, over 350 miles west of the Egyptian border and over 450 miles by the coastal road. There they halted and divisions were withdrawn for the defence of Greece.

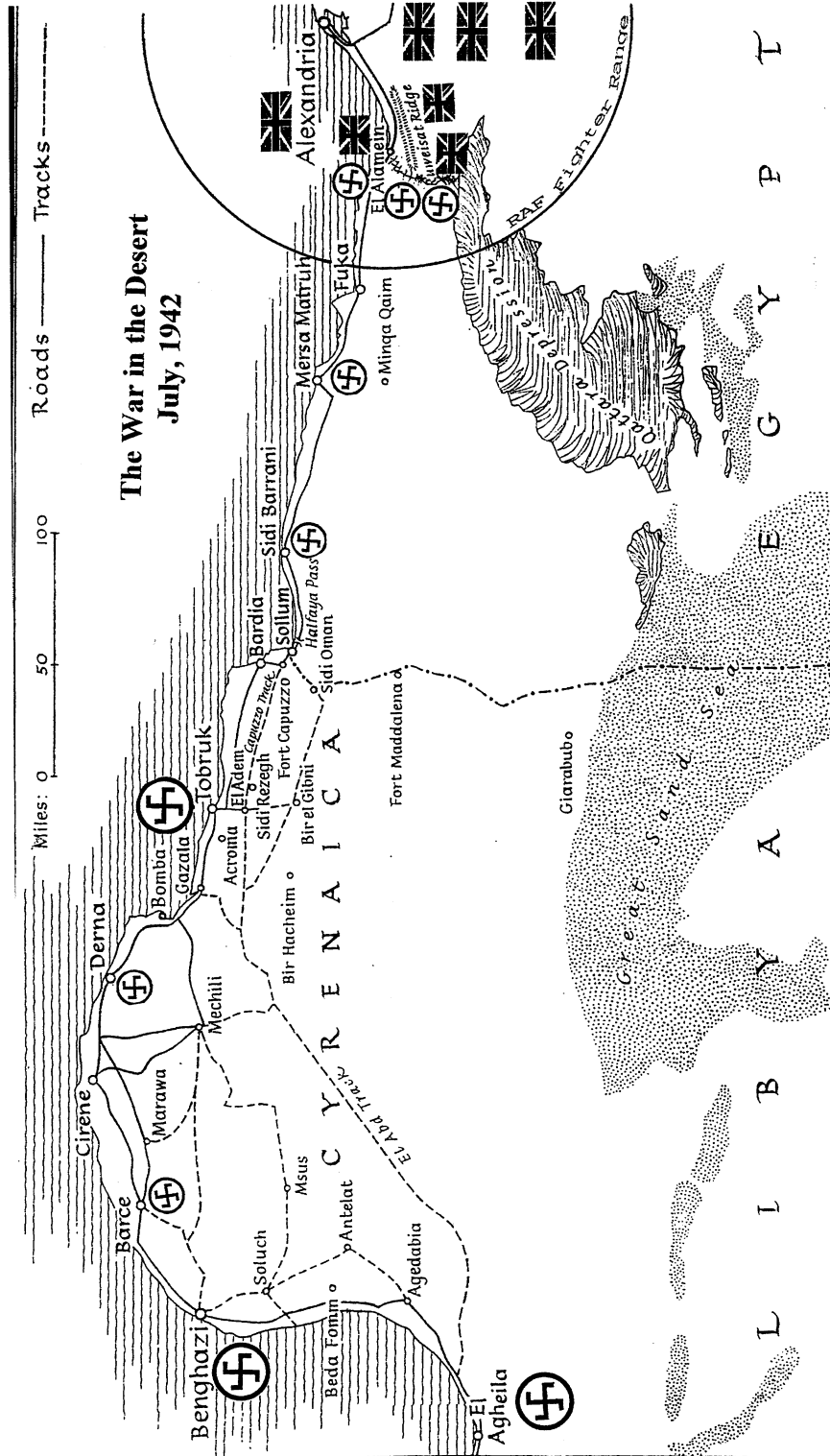
At the same time that General Wavell was sending 56,000 men and 8,000 vehicles to Greece, Hitler was reinforcing his ally in Tripolitania with a light armoured division under General Erwin Rommel. On March 31st, Rommel struck with his German division and his two Italian divisions, one armoured and one motorized. Rommel destroyed the British armour, and deprived the British of their offensive power. It was decided to hold Tobruk with a garrison of about 20,000 men, 15,000 of them Australian. The remainder of the force retreated back to the defensive position of the escarpment at Sollum on the Egyptian frontier. From April until November their spirited defence tied up one German Panzer and four Italian divisions.

In December that year under General Auchinleck, the British troops advanced again, pushed Rommel back and relieved the garrison at Tobruk. But in January, 1942, Auchinleck was deprived of the two Australian divisions, the British 70th Division and the 7th Armoured Brigades which, with squadrons of the Desert Air Force, were sent to the Far East. The Eighth Army was holding a line at Gazala, some 30 miles west of Tobruk. With further reinforcements of another Panzer division and two German infantry divisions along with one armoured and six Italian infantry divisions, Rommel attacked on the 26th of May. The Desert Fox destroyed the British armour, captured Tobruk, and drove the British forces back to El Alamein. (1)

Rommel was brought to a halt at the El Alamein position on July 1. Insecurity, if not panic, ensued at the British rear echelons. In Cairo a great many of the classified documents at the British Embassy, the Headquarters of the Middle East and British Troops Egypt, went up in flames; July 1 became known as "Ash Wednesday". General Bernard Montgomery assumed command of the Eighth Army August 13, and immediately cancelled all plans for any withdrawal. (2)

- 1.) *Young, Peter "World War 1939 - 1945", Arthur Baker Ltd, London, U.K.*
- 2.) *Air Publication # 1063 "The Second World War, 1939-1945
Royal Air Force SIGNALS, Vol IV p. 160*

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Radar in Egypt in 1940 - 1942.

In October, 1940, in Egypt there was one operational Chain Overseas (CO) search radar in operation with five more scheduled to be completed by March of 1941. In addition, four mobile stations were in the process of being dispatched from the United Kingdom. The CO stations had a range of approximately 100 miles. Considerable construction was required to support the 325- foot steel transmitting towers and wooden receiving towers of 240 feet; they were "fixed" sites. The mobile stations had a range of about 35 miles and both transmitting and receiving towers of 70 feet were transportable. During Wavell's advance into Libya, Air Ministry Experimental Stations (AMES) 216 and 235 mobile radar units leap-frogged forward as the advance of the ground forces continued. By January, 235 was operational in Tobruk, and by February AMES 216 was operational in Benghazi. Tobruk and Benghazi were the main ports of supply for the forces in Libya, but, because of the dearth of transport suitable for desert operations, the sea route for supplies was extremely important. The enemy realised this and there were considerable aerial attacks over the two ports. The mobile radar units were used by No. 258 Fighter Wing for advanced warning and interception. After Rommel counter-attacked in April, during the siege of Tobruk, until December AMES 235 under the command of F/Lt Cecil Hulke, RCAF, remained to provide RDF early warning to the garrison. From its location it viewed electronically across the enemy lines of communication and was able to report all enemy aircraft movements between the enemy's rear and forward areas. This information was passed in simple code by WT to our desert fighter wing's operational control. (1)

By November, 1941, some 25 RDF stations were in operation in Egypt giving RDF cover against high flying hostile aircraft. Under Auchinleck the ground offensive began at dawn on the 18th of November, and it was very successful. As Auchinleck's armies cleared the coastal ports of Cyrenaica, Mobile Radar Units were moved forward to give RDF cover. MRU 263 moved from Sidi Barrani to Derna on Christmas Day. Some idea of the lack of mobility of the mobile radar units, for a war of rapid movement in the desert, may be gained from the fact 263 MRU was not operational until the 13th of January and it took 18 days to dismantle the station and move 250 miles and set it up again.(2)

"To meet the demands for mobility, CHL (Chain Home Low) radar units were made mobile and designated COL (Chain Overseas Low). The radar transmitter was installed in a large truck and the radar receiver installed in a second similar-sized vehicle placed in line forward of the transmitter. Ahead of these two vehicles was the aerial trailer having mounted upon it a "birdcage"-like assembly of dipoles with a reflector screen behind them, assembled so as to radiate a beam of wavelength about 1½ meters, and to receive echoes from this radiation as effectively as possible.

- 1.) *Air Publication # 1063 p.173*
- 2.) *ibid p. 18*

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This unit was highly mobile. The aerial assembly was mounted on a blockhouse trailer which enabled it to be moved over rough ground without being dismantled. A shaft projected from the aerial turntable from inside the receiver unit, where an airman operator turned it with what resembled an automobile steering wheel with a handle mounted on the rim."

**F/O J. Billyeald, RCAF, AMES 510
Pender Island, BC.**

By January, the RDF cover from Mersa Matruh, Sollum, Tobruk, Derna and Benghazi provided early warning for convoys along the Cyrenaican and Libyan coasts and rearward lines of communication.

Fall of Tobruk

On the 26th of May, 1942, the Germans launched their opening attack on the Allied line at Gazala. The ground forces could not hold the weight of the enemy attack, but the radar units continued to pass plots until the last possible moment, and then moved back in a leap-frog manner. One station passed 744 plots in 7 hours by WT and did not leave until its position was immediately threatened by the enemy. Not all stations were able to remove their equipment in time. The MRU and COL at Tobruk had to destroy their equipment before the enemy captured the port on the 21st of June. Twenty of the radar personnel escaped by sea, eventually reaching the MRU at Mersa Matruh where they were re-equipped. (1)

"Cyril (F/L C. Williamson) was in charge of a small detachment of radar experts on a cliff overlooking the Mediterranean some distance from Headquarters. By chance, Cy heard German voices issuing orders on the intercom. He immediately ordered the station and all the secret equipment to be destroyed. He and a few of his men (those on duty) escaped by scrambling down the embankment and getting aboard a French vessel tied up below."

**Mrs E. Williamson
Chatham, ON.**

AMES 216 Operations Record Book

20 June, 1942

Fall of Tobruk. Unit placed on 6-hour standby to move. No. 833 AMES accomodated night on return from forward location. Sand bag protection walls pulled down.

22 June

Unit placed on 4-hour standby to move.

1. Air Publication # 1063 p 189

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23 June

Twenty airmen of No. 520 AMES who had escaped from Tobruk by sea were accommodated for the night and re-equipped.

The mobile COL (radar) stations, AMES 216, 220, 235, 257, 263, 510, 516, 522, and 526, were very successful in bringing about effective fighter interceptions as our forces fell back to their Alamein positions. AMES 510, after being cut off by enemy tanks and infantry, was given an escort of fifteen Valentine tanks and was able to continue plotting. Precautionary destruction of all secret documents and correspondence was carried out because of the unit's very forward position. Although the station was subjected to strafing, bombing and shelling it was able to render useful assistance to our aircraft in the mauling of the Axis air forces.

"I was finally posted to 510 AMES which was operating out towards Alamein near the coast. The CO was an administrative officer and I was sent to replace the technical officer working with him who had been out in the desert long enough to become pretty 'bushed'."

J. Billyeald

Editor's note: Over fifteen years ago, the late Ed Daly had three one-half hour interviews at the local radio station in Seaforth, Ontario, where Ed recounted his experiences during WW II. His comments that follow have been taken from the recording of those broadcasts.

**AMES 526, RAFME, RAF
1 June - 24 July, 1942
F/L Ed Daly RCAF, Commanding Officer.**

X: On the desert like---that would be hot, wouldn't it?

D: *"There was never a day less than 120 degrees and the annual rainfall there in the Libyan desert was an eighth of an inch per year. You never talked about the weather because it was the same every day, twelve months of the year it was that way, and of course it was very difficult...there was no civilization, actually there was no growth, just nothing but sand. There were no native villages...even at Bardia we were in the middle of the desert."*

X: What would the temperature go down to at night?

D: *"Well, that was the peculiar thing about it. Because of the sand, in less than five minutes it would drop sometimes 30 or 40 degrees. Even with 120 degrees in the shade, there was never a night that I didn't sleep with at least two blankets over me. In fact, with newcomers, probably just out from England, we had to send guards around to make sure that everyone had a sweater on. Here it would be 120 degrees five minutes before sundown, and they'd say: "What the heck, you're*

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crazy", and then see that 30 or 40 degree temperature drop in a few minutes. If a guy was just going around in his shorts, I would send the guards to tell him to wear a sweater."

X: Well if that was 120 degrees in the shade, then you would be inside...what, inside a tent, when you were on duty?

D: *"We always started to work at almost dawn and worked through until about eleven o'clock, and from then on until about 4 o'clock in the afternoon, the heat was so intense that you'd hardly go outside. Therefore we would take a siesta..in other words take it easy. It was too hot to even read or sleep or anything like that, but you were relaxing during those hot hours. Of course if it was busy...a good many times I didn't stop for this hot spell, but you stayed out of the sun as much as possible."*

X: Well, how long a shift could you put in..like in that heat..?

D: *"Well, during the daytime shift...our fellows that were on duty and operating in the radar trailer, for maybe an hour or two. They'd be sitting in a pair of shorts, and sweating the daylights out of them. We were a very improvised unit. We had old tin trailers and if it was 125 degrees, well inside there it must have been 150 degrees. Furthermore, inside, we had to have it in the dark, so therefore you had about three blankets that you kind of zig-zagged through to keep any outside light from getting in. Any light would affect the operator's view of the screen, much like early TV."*

X: O.K. then, where did you go from there?

D: *"Well, I was going to say that we were up there for a couple of months. From April to July or something like that."*

AMES 526 Operations Record Book,(1)

1, June, 1942

AMES 526 was operating at Bardia on the Libyan coast some twenty miles east of the Libyan-Egyptian border. State of emergency somewhat relaxed. Previous week's paratroop threat lessened.

11 June, 1942

CO called to 11 Group HQ to receive instructions in regards special assignment - Warning of convoy to Malta and Tobruk.

1.) *Air 29/181 Public Records Office, Kew, Richmond, U.K.*

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D: *"I can't just remember how long, but during that time we could sense there was a consolidation and a retreat towards the East. You'd see tanks, army personnel and so on, moving east, towards Cairo. The Germans were building up their supplies. We were plotting transports that were planes flying supplies from Italy. This was ever-increasing, and from the Navy standpoint they were running across more supply ships. So the Intelligence could verify that the build-up of the German Army was ever-increasing, and here we were begging for equipment."*

X: Uh-huh.

D: *"That's when there was an ever-increasing feeling of hopelessness. They're building up their supplies, and we were not doing anything. So the kind of feeling was that there was only one way to go, to move east, to retreat."*

"The offensive did start from Benghazi advancing towards Tobruk which was only 25 miles from us. There was one French Foreign Legion unit which was quite famous for its tenacity, holding out at a little place to the south-west of us called Bir-Akhim. Finally we got word that it had fallen and a few days later I had one experience of being close to these French Foreign Legionnaires, who had moved in and put their camp right next to ours. Well, we were down in a little bit of a wadi...a valley you see, and they set up their camp on the top of this hill. Well, they were the wildest, most undisciplined roughnecks that you ever saw in your life! Of course the French Foreign Legion was famous for being made up of criminals and prisoners and everything else that's on. In fact they were only around for three or four days to a week before they moved farther east. And in that time, their main occupation was firing off rifles and throwing hand grenades, and in fact they thought that was just playing with toys."

X: Ha-ha.

D: *"I had been warned to be on the alert and have my camp almost ready to move at any time because it was getting closer and closer to the time when we would get the word to move. They wanted to leave us until the last thing because they were going to retreat, they were sure of it."*

"They had sent a final convoy to supply Malta, which was very much under siege. They had an awful time keeping Malta reinforced, but they formed a convoy in Alexandria and sent it up. I had to concentrate on that convoy 24 hours a day. I had to give our fighters and bombers exact positions as to where that convoy was so they could fly out and act as protection for this convoy because it was important to get it into Malta. So therefore we were important, and we had to stay there as long as we possibly could."

X: Well who..were you on your own? This is something I have always wondered about. like did you wait for instructions to retreat, or....?

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D: *"Yes, we had...we had antiquated wireless equipment...it was all wireless W/T, it wasn't a phone. Sometimes we also had a "landline" as they called it, a pair of wires across the ground...we carried a mile or so of wire, and we tied in with headquarters or tried to."*

AMES 526 Operations Record Book

14 June

F/L O'Dell, Radio Officer W.D. paid hurried visit to give us verbal short notice " warning" All personal kit and more tentage and equipment packed and stored in the lorries.

16 June

Pack-up scheme rechecked. Extra water, petrol, and rations obtained and dispersed in the vehicles.

D: *"We were prepared for a move and I had been given a secret code word that I had to keep to myself. It was a very common word, "scram" was our secret code word. When I got this "scram", that meant "get out" as soon as possible. For days, we watched the troops and tanks and everything else retreating and our boys were yelling "Yellow-bellies! What's wrong with ya, why don't you stay and fight?". There was a lot of kidding about those fellows retreating, and us still doing our duty. But they were so anxious to keep in constant touch with this convoy that we had to stay there."*

AMES 526 Operations Record Book

17 June

Situation still tense, All other neighboring units have left the district in the past two days. W/T our only outside contact. At night two Welfare Officers visit us bringing our long awaited comfort radio. Would have appreciated our longer awaited machine guns more at this time.

D: *"Now, I can remember...I think there was one afternoon, I don't think I had seen any trucks or tanks going by, or very few, just sparsely...the tail end of the thing. The next morning at dawn, about five in the morning I remember getting up and I took my field glasses and looked in all directions....and I couldn't see a soul, there wasn't anything moving at all so I gave orders to the fellows... I said:"Look out, keep the unit operating but get everything else on the truck". Of course we made sure that we were tanked up, for each truck we had scrounged these German "Jerry cans" as they called them. I was carrying 300 gallons of petrol on every truck to make sure that we wouldn't be stopped for running out of gas. Within a half an hour or so, by six o'clock, I had the unit ready to move off. I just had an instinctive feeling: 'this is it'...we can't stay here much longer".*

"Within a few minutes of that time, we received the welcome sign "Scram". I closed down the camp. We were parked in convoy order, ready to move off, so we were able to move off within five minutes. As we moved off our camp, I looked around with my field glasses and I could see away to the south, a German scout car. So that's how close we were to being picked up....we retreated and we kept on

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going. There were some Military Police still back there to direct any stragglers. We did run across a few checkpoints and I think we were about the last unit to go."

AMES 526 Operations Record Book

18 June

Traffic on the highway had dwindled to practically nothing during morning. At 11:00 hours message came through by W/T to evacuate the site and move east to Sidi Barrani.. Arrived Sidi Barrani by evening. Camp pitched.

19 June

Visited by Air Commodore Mann who congratulated unit on arriving safe and without loss of equipment.

X: Now were you on a road or out there in the desert in the wide open?

D: *"No, there was really only one road along the south shore of the Mediterranean. There was one of everything. There was one train line, and there was one set of poles for telephone lines. In other words, if you were off that one straggly road, you were out on your own in the desert. In fact, a good many army units in the desert used naval navigation officers."*

"We moved back. The army had retreated so much it was about 50 miles we had to move. Of course all our vehicles were very slow. I think we averaged about 8 miles an hour. We had to move slowly because of the delicate radar equipment. In fact, when we moved we used hundreds of yards of wire...this telephone wire to tie our equipment into the trailers. You know we would wrap it around and zig-zag back and forth. It was like a spider web when we got ready to move, and even then there was a lot of swaying damage."

AMES 526 Operations Record Book

24 June

Operational site chosen by 07:00 hours, S.W. of Sidi Heneish on a ridge. Camp packed and moved to site and was operational by noon.

26 June

Without warning, word was received to move out fast. All records broken in pack-up. Technical site ready in thirteen minutes and convoy moved off twenty five minutes after message received.... Many stops en-route caused by frequent enemy bombing and strafing...No damage or casualties.

D: *"We weren't controlled by normal headquarter's set-up. I swear to goodness that our movements were always governed by a bunch of madcap scientists back in Cairo that sat down at a map and said: 'Now here's a good place to have a radar station'. Three times in that eight week retreat back to Alamein, I think three or four times, we would retreat 25 or 30 miles and then some person would get a brainwave that we should move back up the line."*

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So now we would be going against the grain, towards the Germans, and setting up stations so that they'd have intelligence, radar intelligence as close to the enemy as possible. Of course, again, we were kidding all the army and tank personnel that were retreating - "You're going the wrong way!"

AMES 526 Operations Record Book

27 June

HQ finally contacted and instructions received to set up at a point west of Alamein. .. Operational by evening.

28 June

Investigation showed that we were to be sited west of our lines..(i.e. behind the enemy's line.) A new site chosen south of El Imayid, about eight miles from the highway.

29 June

Operational by 10:00 hours... Shortage of water, rations and petrol.

30 June

Fine results operationally, good land lines and good W/T communications. Month ends with the technical equipment and M.T. badly shaken around needing overhauling. Personnel weary from lack of sleep, frequent moves, hard rations, no bathing, sleeping in clothes in and around lorries but still enthusiastic over possibly doing a valuable job on present location. Altogether eleven men have gone sick since leaving Bardia, but even though short-handed, the unit has landed on the site close to schedule and with very little loss of equipment.

D: "Alamein was the last place to which we could retreat, and form a defensive line because about 40 miles inland from Alamein was what they called the Quattra Depression, which was nothing but an impassable bunch of rocks, and no vehicle could get through."

"Well, on my fourth move back towards the enemy, we were set up for a couple of days and we lost our wireless communication with headquarters. I didn't know what the heck to do. So we were lost for three days...we were waiting for orders. And finally, to my relief, I spotted an army jeep...a scout car out hunting for any units that were left over, and I think they had our name because an army chap came into the cabin and he said: 'are you 526 A.M.E.S?', and I said 'Yes'. He said: 'Well boys, we didn't know where to find you but we had to go out and hunt for you'."

"Again we moved off east and when we went through the checkpoint at El Alamein, they told us that you're about the last unit to come through. I got in touch with Air headquarters, our own headquarters. They had written me off and they had formed a new unit. They just wrote us off...they said we were lost and that was all it was. And the first thing they wanted to know was what losses I had...what losses in equipment and personnel. And I said: 'Zero'. So they were very congratulatory about me saving the whole unit, and all the personnel."

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AMES 526 Operations Record Book

4 July, 1942

05:00 hours station moved to a new site... Operational by 08:00 hours.... Improved results....visited by W/C Simpson who brought us four machine guns. Very welcome. First M.G.'s ever held on unit since its formation in April.

17 July

Overhaul of equipment completed by 08:00 hours. Results greatly improved.

19 July

Personal message of congratulations from AVM A. Coningham read out to all personnel.

20 July

Word received from HQ that our unit was to be relieved to enable our equipment to proceed to base for refitting.

24 July

Informed by Filter Room that 522 AMES (our relieving station) now operational and 526 could close down.

D: "During the retreat we had a lot of terrifying experiences, because we were cut off two or three times. The Germans had got ahead of us. In the middle of the night with no lights on, we had to creep around the German camps. Once we were on this road in convoy order, we were actually strafed and bombed but we were lucky and we didn't suffer any casualties. I had arranged, on the spur of the moment, a method of dispersing in the event that we were attacked from the air. Our trucks had an opening in the roof, so an airman could stand up on the passenger seat and act as a look-out. I worked out a simple plan. I said: "Well, have a lookout on every truck with this roof opening and have a guy standing up there, so if there is an enemy plane...he could see and shout down to the driver, and the driver leans on his horn, stops the truck and jumps out and runs, then the horn would warn all the guys riding in the back of the truck to get out and run, spread out on either side, and the other vehicles would follow suit."

"When we got back to Cairo, a high ranking officer (AVM Coningham. A.O.C., RAF ME) came to give me an official 'welcome back' and congratulations for arriving back intact and still operational. We were pretty high. Eight weeks without our clothes off and hardly a wink of sleep. We stopped hardly at all, or if we did stop for awhile we would throw a blanket on the ground and get some rest. As far as food supplies were concerned, for that whole eight weeks, for three meals a day we lived on nothing but bully beef and hard tack. In fact one guy went around the camp for two or three days pointing out a tooth that he'd chipped biting on this hard tack; that just proves how hard it was ! And of course this bully beef, is corned beef in cans. We buy it at the store and refrigerate it so that it will slice nicely. You can imagine what kind of slop it was, coming out of a can at 120 degrees."

X: And what is hard tack?

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D: *"It's the hardest....I don't think a dog would bite it. It was hard, very hard biscuits. They're about three inches square, something like that."*

X: It would be dry?

D: *"Oh absolutely dry. Some of them were manufactured years ago. They had it in wax paper packages and they'd hand you a packet and a can of bully...if you felt like eating, that was it. There were no desserts or anything like that. I never saw fresh fruit, fresh vegetables, fresh meat, bread, or butter. It was pretty depressing....but the exasperating thing about it was that while we had an awful diet, we were all quite healthy ! It must have had all the vitamins and proteins we required. One chap, I remember bragging around that he'd got a bully beef tin and he said: 'You know what was marked on the bottom of it? Crimean War !'"*

X: Ho, ho, ho.

D: "Anyway, our equipment was in bad shape, and all the fellows after this ordeal were pretty well tired, and were sure entitled to a rest. They had not had a day off since April. There was a pause then. They weren't intending to do any more than hold the line at Alamein, until they brought in reinforcements."

Ed Daly
Seaforth, ON