# THE STORY OF THE 2/2 ARMY FIELD WORKSHOPS



#### BY

## Brigadier GEORGE MORAN OBE

MELBOURNE

1964

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Wholly set up by hand and printed in Australia by G H S Moran and K Wallace Crabbe. 1964-65

Outlook Press. Eaglemont.

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## PREFACE

THIS is a story of engineers and tradesmen and of men skilled in the transport of large and heavy equipment on and off roads : a tale too of clerks, cooks and storemen and of many others who made the task of the craftsman easier and more efficient. It tells of Australian civilians who were trained as soldiers and then applied their technical skills in war.

It is only part of the story for the history and traditions of these men began in ages past and my part of the tale cnds when the unit was reorganized into three smaller ones in 1942 to meet the needs of jungle operations and the experiences of the years of war. An account of the exploits of the newly formed smaller units in the S.W.P.A would make thrilling reading.

As far as I know, there has been no history of electrical and mechanical engineering units, and, nearly a quarter of a century after the events, it is inevitable that this account has defects and inaccuracies. Despite faults I trust that it will provide a basis for future writings for other units of RAEME as well as our own. It is vital that modern military history include studies of the Corp's role and capabilities if the army is to get the best service in the field.

I would like to thank those who have helped me in this work. Among them Lt-Colonel Les Jones and Mr. Harry Wilson for their notes and drawings and to Group Captain Wallace-Crabbe RAF, who was closely associated with the Corps during the war, for his helpful reviews, advice and the printing of the book on his press.

Finally, may I thank the secretary of the association for his untiring aid in collecting data from many sources.

George Moran.

#### Chapter 1

#### BACKGR0UND AND PLANNING

Modern armies in their field forces have units that are primarily trained for the destruction of the enemy s will to fight and of other units whose role is to make their work less costly in casualties and more effective. The latter too must be trained and ready to fight but this aspect is secondary for the specialist soldier's inherent philosophy is that his job is to help the soldier of the line. In medieval times, and long before, these technicians, with strange titles such as lorimer, fletcher, artificer and artillerateur kept in order the bows, bomdards and battering rams. Like the craftsman of today they did not write of their When army equipment became works. more complex the need for more craftsmen grew. When 21 Army Group landed in France infantry were 17 and REME about 5 percent of the force. Today, about one in every seven is a member of REME.

In modern well-equipped armies one man in every seven or eight is a member or the electrical and mechanical engineering corps or its equivalent.

The Mechanical Engineering Branch of the Australian Army Ordnance Corps was very small before the war. In 1928 a total of 23 armament artificers and 15 assistants looked after all equipment for the field force of seven divisions as well as the guns and plant of fortresses extending from Thursday Island to Fremantle. Farseeing senior officers of the permanent forces recomended expansion some years before the war's outbreak and in mid-1939 we had about twelve officers and some hundreds of men in the permanent forces and more in the militia and reserve. Those in full time service had little time for regimental work but were busy with the overhaul of old war materiel; some of it pre-1914, and in design and experimental work vital for the army's field equipment.

## Chapter II FORMATION OF THE UNIT.

WHEN approval to raise the 2/2 Army Field Workshops was first given. its three recovery sections were to have been raised in Queensland, South Australia and New South Wales and the Main Shop in Victoria. At that time the 'Phoney War' ended, rapid expansion of the AIF began, and significant to such units as this one, rigid manpower controls were eased and highly trained technical men could be selected to very rigid standards. The sections in the northern stat es became the nucleus for the 2/3 A.Fd.Wksp. and, for the 2/2, two sections were raised in South Australia and one in Victoria. In addition, light aid detachments of 7 Australian Division and Corps Troops were initially trained with the larger main shop or sections.

The unit really became an entity when Brigadier, then Major Chapman and I had permission to enlist in the AIF on 2 May in the depressing year of 1940 when every trick seemed to go to the enemy. We set up in a tent with a table and form in the car park at Caulfield Racecourse and selection and organization of a team of high grade men began. At night in the well-lit but cold grandstand we made an untried war establishment into a unit plan. We had little to guide us in this organization but the most apt advice in the Ordnance Manual (War) gave a very good answer: 'Flexibility must be the keynote in our work', It was also clear that junior leaders in technical fields must also be the military section leaders.

Invasion of Holland and Belgium began on 10 May 1940 and soon western defence was crumbling. Like many others we were deeply stirred when grave voiced volunteer soldiers told their reasons for enlistment. Men of widely different political views and education showed their quality and united outlook. Not 'vocally patriotic' or jingoist they showed themselves worthy of their homeland and heritage.

I had known W.D. Chapman for many years as one of Australia's 'top' engineers but at this time and during the years that followed I, and many others, were to learn of his great leadership characteristics. His human understanding, quick perception and his sense of humour were inspirations to us and we knew that we were fortunate to have him as our unit commander and later Chief Ordnance Mechanical Engineer of HQ. AIF. Middle East

The C.O., then Lt.Col Chapman, left on tour of the states with the involved task of organizing other mechanical engineering units and sub-units throughout Australia. Meanwhile, the tented HQ in the car park grew to a large unit with officers well qualified technically, and men in trade postings with high-grade apprenticeships and years of practice; in many cases as foremen and leading hands. The non-tradesmen were also first class selections. Early in June the unit moved to a spacious area of the Williamstown Racecourse with vast training fields. It would be difficult, though, to imagine a less comfortable site for men who had just left the comforts of civil life. At first men slept in open grandstands but later used the horse boxes after partially sealing with tarred paper. Bitter winds from Port Philip Bay gave foretastes of the rough side of service life.

Captain Bryceson and WO. Bourke with the aid of others raised regimental work to a high standard before the embarkation. Lectures gave guidance in technical maintenance of army equipment to men highly 'civilian trained' and courses were given at army workshops and civilian firms.

The few with army training did much to inculcate others with the knowledge and code of the soldier. Not least, those with experience of orderly room and storehouse procedures helped the keen-to-learn young Australians in these aspects of army life. Mistakes were made, inevitably, but they were few and the unit quickly developed a character and, I feel I may call it : a 'SOUL'

The unit, at the beginning of August had its Main Shop with the HQ, General Engineering, Mechanical Transport and Instrument-Radio Sections: and with No. 4 Recovery Section at Williamstown, while Nos. 5. and 6. Recovery Sections were at Woodside Camp, near Adelaide. The light aid detachments, which had been enlisted and given their preliminary training with the larger units had been posted to parent units for permanent attachment. The unit equipment, including trailers with their fine machine tools, the stores lorries with stock the hand tools and normal military stores, were fairly complete in accord with tables prepared before the war.

This'War Materiel' which was to serve us so well in the field, had been designed without experience of modern war. I want to pay tribute to those in civil industry who helped us so wholeheartedly before war's inevitability became obvious. In particular I would like to mention General Motors-Holdens, the Ford Motor Company, the Victorian and South Australian Railways (the V.R.actually loaned a drawing office with full staff when war finally began.) the firm of AWA and McGrath Trailers. They and other firms gave invaluable aid to the small, overworked design & experimental team. In general, the army's vehicles were adaptations of civil road lorries and vans with strengthened chassis, large singles instead of dual tyres and downgraded inload capacity. It is remarkable that they behaved so well as they did in forward areas.

The vehicles were shipped at Melbourne on the S.S.Westralia, a one time German freighter, (not HMAS Westralia) and they reached Haifa before the unit got to Suez. This shipment provided the first well-fitted mobile workshop in the M.E.Theatre.

#### Chapter 3

## MOVEMENT TO THEATRE OF WAR

THE major part of the Main Shop embarked at Port Melbourne on S.S. Strathallan on Tuesday13 August 1940 and, calling at Adelaide, Fremantle, Singapore (where a route march in tropical conditions was a new and somewhat unpleasant experience) and at Colombo en route, disembarked at Bombay on 3 September and encamped at the main cricket stadium. Later, on 20 Sep the unit moved to the military station over 2000 feet above sea-level at Deolali, across the Ghats about 100 miles NE of Bombay and near the ancient city of Nasik. The stay at this site on the Grand Trunk Road was brief as the unit boarded the President Doumer on 24 September and as part of a large convoy sailed for Egypt. The convoy began with 17 ships but it grew daily until the naval escorts joined on 2 and 3 October when there were 45 ships.

Near Asmara, Italian planes made high level attacks. This was a taste of things to come in the desert. Although no hits were made, bombs were close and splash in the portholes left open, gave some duckings.

The trooper anchored at Suez on 11 Oct. 60 days after leaving Melbourne. The next day the troops moved ashore by lighters and entrained for Helwan, a camp about 14 miles from Cairo and once the quarries for the limestone of the pyramids.

The two Recovery Sections from South Australia entrained for Melbourne, joined the rest of the Main Shop and 4 Recovery Section and embarked on the M.V. Nieuw Holland at Port Melbourne on 15 September. They called at Fremantle and Ceylon and reached Suez at the same time as the Main Shop. They sailed up the Canal to Kantara, and by rail to Helwan, where the unit was camped together for the first time. Training and the preparation of the vehicles and plant kept everyone busy, An advance party of the unit moved to Amyria on 3 Dec 1940 and two days later the main party, with vehicles in convoy, left Helwan, passed through Cairo and by the pyramids at Mena and on to Amyria which they reached at dusk. With the exception of 5 Rec. Sec. the unit moved westward on 16 December. The relatively slow moving Main Shop camped at El Daba but moved to Fuka the next day where they camped and worked until 26 December. The Main Shop, accompanied by the flexible 6 Rec. Sec. moved on the following day, staging at Mersa Matruh, and camped at a coastal site near Sidi Barrani, known as Kilo 104.

Fourth Recovery Section, faster than the Main Shop, staged at Kilo 104 and moved on to the exposed, stony and flea-ridden area at the top of Hell Fire Pass (Halfaya). This had been an Italian post and the site included a small ammunition dump : not the ideal shelter from the occasional attack from aircraft.

Events leading to the situation when the unit arrived in the area may be worthy of review at this stage. General Graziani, the Italian Commander, began his advance on Suez on 13 September 1940. He had two divisions in the forward area, two more in support, a mobile group in reserve, about 200 tanks and ample artillery. A relatively small British force drove him out of Egypt following the Battle of the Forts near Sidi Barrani taking nearly 40 000 prisoners and large quantities of vehicles, weapons and other stores. This rather impudent engagement began on 9 December 1940 and the invaders were driven over the frontier into Cyrenaica. Before Christmas the XIII Corps had taken Fort Capuzzo and invested the fortress town of Bardia.

Maj General McKay, the GOC of 6 Aust Division received orders to take over from the 4 Indian Division and on 19 December 16 Aust Brigade marched up Halfaya Pass and, on 2I December the Australian GOC had command of 16 British Brigade (less one battalion) and 16 Australian Brigade. On 27 December the 17 Aust Brigade took over from the two British battalions which went back for rest.

Before Christmas, General O' Connor. the XIII Corps Commander's force included the British 7 Armoured Division, the 6 Aust Division with the 16, 17 and 19 Bdes but less important units. Only two Fd Arty Regts were available (and one of these was equipped with World War 1 weapons), the AT Regt had been sent to England and its place taken by AT Companies in each Bde (the Division had only 11 AT guns and the ADOS was happy when handed two more which the unit had found by the roadside). The Northumberland Fusiliers (MG Bn) replaced the Aust unit sent to UK. RHA and RA provided 4 Field, 2 Medium and 2 AA Regiments and, of great importance, 7 Royal Tank Regt whose men had fought in France: then Nibeiwa and Sidi Barrani.

The 2/2 Army Field Workshops, being Corps Troops, were under the command of the British XIII Corps and the technical direction of the COME Lt-Col Howard-Jones RAOC. This officer's experience of the desert; and particularly of the Italian terrain in Cyranaica was of greatest value to planning when later advanced sites had to be selected.

Three men were temporarily detached as an element of an LAD for the squadron of 6 Div Cav Regt serving with the Division. The regiment (less this squadren) beseiged the strong enemy force holding Giarabub oasis and their own LAD were there also

Only those who know such country can visualise the damage done to equipment by boulder-strewn, bomb-cratered roads and tracks as well as the not infrequent vehicle casualties through landmines.

The unit quickly put a repair road patrol into service between railhead and the Div area. It was kept very busy.

#### Chapter IV THE FIRST LIBYAN CAMPAIGN

ON THE EVE OF Australia's first army battle of the 1939-45 war, headquarters of 6 Aust Division (which occupied ancient Roman or Greek granaries near the Libyan-Egyptian frontier) asked the unit to provide all available lorries to carry ammunition from the AOD and unit drivers were thrilled to arrive at gun sites in action.

The Battle of Bardia began at half-past five on the very cold morning of 3 January 1941. The wire, mines and anti-tank ditch were breached by the RAE and the tanks, followed by the infantry, moved into the fortress which, after some heavy fighting fell at half-past one on the afternoon of 5 January. Official accounts of the action are detailed but other stories, though often historically valuable, infer that Australian troops damaged captured equipment. This was foreign to the soldier's outlook for the division was too short of materiel to waste anything and all strove to conserve rather than destroy. Misplaced efforts to salvage parts from damaged vehicles or ' cannibalisation' did make the craftsmens' task a lot harder. Throughout the campaign parties of the 2/2 followed the infantry to collect and conserve materiel.

After the battle the GOC called the CO of the Tank Regt (Lt-Col Jerram) and me to a 'talk' at which he said that each tank was worth a battalion to him and only six were fit for the Tobruk battle. Everything to get all possible AFV's fit to go into the action must be done. The CO RTC said that his tanks had moved 500 miles on their tracks and extensive overhauls were vital.

It is seldom wise to separate interdependent parts of a technical unit for machinery elements, smithy, optics, instruments, QM sub-sections, etc. are parts of one corporate body; each part is aided by others. As the tank work was so vital, a large part of the Main Shop and all 6 Rec Sec moved to the 7 RTC 'Lager' at Alaga. There, Captains Naismith and Redpath, with the skills and devoted hard work of their large teams and some unorthodox repairs, got 20 tanks fit for battle. Before the Sidi Barrani attack only 8 of the unit's 57 tanks were in order.

A modern armoured regiment, with help from transporters and special field repair units has an LAD of more than 100 men. It is a tribute to the unit craftsmen, as well as those of the 2/2 that the Matildas. and the Italian (converted!) tanks, served so well.

Half of 5 Rec Sec, from Amyria, carried on the role of the Sixth including the Road Patrol based on the RAC peacetime work. Its value was incalculable.

We were 'new to tne game' but already needs for changes in organization and of equipment were evident. Shortage of spare parts was one aspect (perhaps 'insoluble' as overall coverage is very costly) and the need for an external wireless link to staff. An Italian telephone exchange with 15 subscribers' provided good inter-com for dispersed sub-units in the Sidi Barrani area and every later unit site.

Our vehicles were adapted for army use from standard road types. Although tyres and springs had been changed, chassis and fittings altered and loading limited, cross country work in the desert caused spring breakages above any conceivable rate and certainly more than could be met by spare part stocks in the theatre.

Among the 'Jobs' were repairs to many captured 5 and 10 ton Diesel trucks, watch repairs in hundreds (desert dust seemed to enter the best of watch cases) and repair of six Italian tanks. I learnt later that one of our unit fought the 37 mm gun during the attack on Tobruk.

Kilo 104 was a beautiful site on the shore of the Mediterranean. It lacked water and the daily ration of about a quart a man for all purposes made it valuable though still unpalatable; to say the least.

As with all future camp sites, a defence plan was prepared and each sub-section knew its combatant role. Nevertheless all daylight minutes were used to deal with the heavy work load. The site of 4 Rec Section became a zone of hundreds of equipments awaiting repair. The KHAMSIN, (duststorm of incredible density) sometimes stopped work because visibility was 'nil', thick dust on food was normal fare and paintwork of vehicles blasted to show bright base metal. Storms on the Mediterranean cast strange objects on our shoreline including a mine and a dinghy of a luckless Italian aircraft.

On 11 January, 4 Rec Sec moved to 38 kilometers East of Tobruk and orders were given by Corps for the Main Shop to move as soon as practicable with 5 Rec Sec to an area near the Gulf of Bomba. A British Corps Workshops took over uncompleted work and the unit, (less a rear party) left Sidi Barrani in two convoys on 22 January.

Late on the night of 20 Jan men of 6 Div began to move on Tobruk's defences: the breakthrough being made by the RAE and men of the 16 Bde. The 'I' Tanks, and 2/1 Bn moved eastward along the wire of the defences and advanced four and a half miles in two hours. In the official history details of tactical actions are told but unit interest lies in the activities of the workshop detachment of 6 Rec Sec which went 'in' with the tanks, put five disabled ones into service again when under fire and won three military medals for their work. This epic made us proud of our team, and it was probably the first time that spectacular oxy-acetylene cutting plant was operated in exposed forward positions in battle.

Maj Bryceson, with a party, entered the fortress-town during the action and located( and put guards on) valuable workshop plant and spares. The unit gained much from this source: even acquiring spares for watch repairs. They were badly needed. It may be noted at this point that Italian war materiel we saw was good in most respects. Although they had been noted in the past for their artillery, they had no gun to cope with the Matilda's armour. On all sides we saw evidence of high grade, 'years long'technical work of a nation that planned for war. Among other gear, we found what appeared to be a system of communications with thermionic telephone circuits superposing voice frequencies on a light beam passing through quartz lenses. This was sent to HQ in Egypt. Italian tractors (some 4-wheel steered) served us well but they were regretably unstable.

We were, with rare exceptions, civilians with little military training using adapted civilian machines. We did have the morale and the will to give of our best which was not always true of the enemy. Later, I saw Italian troops as co-belligerants in Europe where they earned the respect of British soldiers for their valour against the Nazis. On 24 Jan. the convoys reached the new site 'Ain el Gazala' where, after dispersion work soon began. On 27 Jan the unit's four recovery posts aided the rapid advance of the infantry from Tobruk to Matuba.

The Senussi in Lybia, unlike the desert tribes on the Egyptian side of the frontier, were still in their camps and it was important we avoid unwittingly offending them. An Arabic speaking unit member ensured good relations. Later, Lt Timson, of Field Security, arrived with his staff to gauge the Arabs' feelings. Most of the menfolk were busy collecting material from battlefields and one saw strings of canels, laden with gear, moving to unknown destinations.

We were relieved when, on 27 January, we were allotted a platoon of infantry for guard and security duty. Until then we had of necessity used tradesmen with loss in the technical output. Lieut Stanton and his 28 men from the 16 Infantry Brigade were a welcome and happy part of the unit. About this time, an advance party of the 2/1 Army Field Workshops reached Libya. This unit, formed with the original Sixth Division, had been split into small detachments, mostly infantry, in the dark days of 1940. The main body had gone to England and were reformed, their meagre machine tool facilities augmented by Italian workshop vehicles we had collected at Bardia and Tobruk and their own efforts. Their history, in Tobruk's seige and at Alemein is a further fine chapter in the craftsmen's story of service.

Derna fell on 29 Jan. We came under 6 Division and ordered on to Giovanni Berta which 6 Rec Sec reached on 5 Feb; and on to Tecnis next day. They were joined by Main Shop on 7 Feb and 5 Recovery with rear party on 10 Feb. The enemy had fled and were pursued by 19 Bde in the North and blocked by 7 Armd Div in the South. At Beda Fomm resistance ceased on 8 Feb with complete defeat of the enemy forces. On 5 Feb Maj Hayman and I, with our drivers, took a by-pass track to Barce (the Italians had blown the pass) and reached the town at dusk. Many buildings, including workshops in which we were concerned for a new site were in flames. We returned to Tecnis after Australian infantry arrived.

On 8 Feb Maj Bryceson and I tried again for a site that would provide hard standing and good road approaches Rain came; in this desert soil rain's result was incredibly sticky mud and we covered only ten miles in eight hours to the foot of the pass. On our way, a party of Arabs brought to us a very sick RAF officer who had been shot down four days before. An Adelaide man, Flt-Lt Paine had had the Arab's best care.

We selected Maddalena, the headquarters of the Italian Colonisation Scheme in Cyrenaica with its shops, school, church, police station and amenities such as shelter from an unkind climate. These conditions allowed us to turn out a great volume of repairs to equipment that was often 'on its last legs' after a gruelling campaign. None had envisioned the problems and damage with weapons and gear in such conditions.

The unit sent detachments to aid repairs at regimental sites, pressed ahead with the recovery of disabled equipment to areas of the Main Shop and Rec Sections and prepared long convoys of ' non-runners', for the long road-rail trip for crocks back for rebuilding at base workshops in Egypt.

In a technical unit it is perhaps natural to stress the engineering aspects and forget that success was the result of unified efforts by every member. Fine work was done by drivers (including motor cyclists in storms of dust) and Capt Beck's team managed to do an important job in the vilest khamsin.

Capt Pilcher, our efficient RMO, though very busy in his medical role, virtually built a vehicle from scrap parts of many makes. Although he got help, his efforts with this remarkable unit served his patients well. The HQ and both 5 and 6 Rec Sections reached the site on 9 Feb and the rest of the Main Shop two days later. 4 Rec Sec moved to a well built and equipped depot in Bengazi. The facilities of the armies of Italy (and those of France that we saw in Syria) made us think of the makeshift and meagre, galvanised iron depots of pre-war Australian technical units.

On Sunday, 16 Feb, the first half-holiday was given for a sports meeting. Until then men had worked every hour of light every day of the week. Colonel Chapman came the same day and was obviously happy to be again with his old unit. On 20 Feb at the unit HQ, representatives of 1 Aust Corps and officers of the Engineering Branch of field units AAOC, conferred on the lessons of the campaign. There was a lot to discuss on organisation, vehicles, communications and supply of spare parts. The small Field Park Section, despite sterling efforts, could not meet the repair part demands. At this time the 2/2 A Fd Wksp extended from Bengazi, where 4 Rec Sec was having its usual hot time with bombing, air mines and overwork, through detachments with forward troops, to the HQ, the Main Shop and Recovery Sections near Barce back to Amyria in Egypt.

The electrical and mechanical repair and recovery problems of an army, though it was equipped with very simple tools of war at that stage, clearly showed the need for reorganization, larger units and improved equipment; particurlarly vehicles.

Bombing and machine gunning attacks by the Luftwaffe had increased and it was decided to move to nearby Oberdan Road where dispersion and camouflage of work in hand and unit plant were practicable.

The keynote of this phase was 'very hard work' and repair methods were often unorthodox. Short lengths of vehicle springs were electric welded, hardened, tempered in used sump oil and fitted to units out of service because no replacements existed. Capt Frank Hurley, the noted war photographer, boasted of one such repair on his vehicle; 'Still OK after 1500 miles', while new (and some repaired) ones lasted only 50 miles. Acetylene supply failed at a time when urgent repair to alloy steel howitzer spades was needed; and the bottles from Barce's air beacon provided the answer.

Capt Hurley and I visited Italian colonists in their white, squarish homes at this time and it was interesting to hear them tell of fears of the advancing Australians and their relief when they found we were not the barbarians that they had expected. A number said that they hoped to migrate to Australia when peace returned.

The Oberdan Road site, like most of our camp areas, had reminders of the age when Cyrenaica was richly developed as a Greek then Roman Domain. We were among the ancient Pentapolis and remains of the long dead civilisations were on every side.

Digging in a slight mound in the camp area uncovered an entrance to a 2 000 year old granary. We were near Cyrene, a city whose ruins extended many miles from the impressive arena, slave market, statuary, baths and roads with chariot-worn tracks. Nearby Apollonia, the fine port of Cyrene. Barce (once Barca) and Bengazi (ancient Hesperides Berenice) which, with Tocra (Teucheira Arsinoe) completed the Greek Pentapolis. Two more towns developed in later Grecian times: Ptolemais the present day Tolmeita which is North of Maddalina and Darnis-Zarine which is modern Derna with its pretty port but difficult, steep hills. After 500 years (in 96 BC) Rome replaced Greece and the Ptolemies and ruled until THE JEWISH SETTLER'S REVOLT in 115 AD.

Cyrene, a city once next in grandeur to Athens, is rich in history. The city's noted citizens included Simon of VIA DOLOROSA and Synesius (Neoplatonist then bishop of the Christian church in PTOLEMAIS).

#### Cnapter V. GREECE, TOBRUK AND SYRIA

MOST UNITS of the 6 Australian Division were on their way to embarkation points for Greece. The 17 Aust Brigade and the 3 Armoured Bde of the newly arrived British 2 Armd Division with the Kings Dragoon Guards (an armoured car regt), two Free French companies and two light AA units provided the forward area defences. The Dragoons had the first brush with German troops on 20 Feb. 7 Armd Div left Libya on 21 Feb and on 9 Mar the 20 Aust Bde took over from the 17.

Another campaign within the larger one concluded when the 18 Brigade. which had been part of the original 6 Div, came to the ME and captured Giarabub Oasis. This Oasis was then garrisoned by four newly formed battalions of Sennusi until they, in turn, were relieved. The 18 Aust Brigede joined the 7 Aust Division in Egypt. The 9 Australian Division, with many of its men still untrained, had taken over the role of the Sixth. No 6 Rec Sec left the area on 9 March with a convoy of 'crocks' for major overhaul at the Adv Base Wksps at Tel el Kebir. The half-section of 5 Rec Sec left the following day (was dive-bombed en route!) Maj Bryceson and the respected RSM, Dave Bourke, left with the advance party on 16 March. No 4 Rec Sec staged at at Maddalena and Ain el Gazala on their on their move to Alexandria.

All were security concious at this time for our Navy friends told us of the landings of German troops and armour and of the large scale of these operations. Officers of Cyranaica Command told me that they expected the German advance to begin early in April so, clearly, Rommel's timing was no surprise in that quarter. S/Sjt TayIor of the unit's radio section constructed a radio direction finder from an Italian loop aerial wireless set. He located the general area of the transmitter and recorded code signals from the colonist zone on the escarpment SW of Barce. The intelligence section of Cyrenaica Command were vitally interested and, at their request, he was detached for HQ duty. An officer of the HQ told me that the expected German invasion would take place early in April. It is clear that the attack by Rommel was not earlier than the command officers expected.

It was obvious that the 9 Division was in for a hectic campaign and when a young lieutenant and his platoon came to relieve men from the Sixth (who were releasing craftsmen from security and guard duties), he told me of his unit's stores and weapon lacks. We were able to provide him with pistols (he told us that there was only one in the battalion) and Italian and German light and medium machine guns. In retrospect, we pay tribute to these men of the 9 Aust Division that, in so little time, they could complete their musketry courses and
become such first rate soldiers that, despite inferior equipment, they fought their way back to Tobruk and held it against highly trained German forces.

The move Eastward began when 4 Rec Sec which had staged with the HQ, left by the South road on 18 March and reached Umm er Rzem next day. The remainder of the unit left Oberdan Road on 19 Mar and with few exceptions made the top of Derna Pass by nightfall. The shortcomings of our vehicles were overcome thanks to the better adhesion of captured Italian trucks. Next day the General Engineering section staged with 4 Rec Sec which encamped at the old site at Ain el Gazala while the rest of the Main Shop moved into buildings of an Italian AA Regt in Tobruk. We knew that we were part of the force for Greece and we were expected in Egypt by 25 Mar.

In Tobruk, men were detached to the 2/1 A Fd Wksps for weapon repair.

The Main Shop Headquarters. MT and

electrical Sections left Tobruk on 26 Mar. and arrived at Amyria on 29. The heavier GE Section convoy left the same day but arrived on 30 March. 6 Rec Sec, which had done a fine job for the units bound for the movement to Greece, left Mersa Matruh for Amyria on 28 April.

No 4 Rec Sec reached Amyria on 4 April but were sent back towards Bengazi, again recalled, then rejoined the parent unit. On 5 April 6 Rec Sec left Amyria for Tobruk and reached the town before encirclement by Rommel's forces. On 8 April a party from 2/1 Army Field Workshops left for Tobruk but were unable to get through the enemy lines and rejoined us at Amyria. A little later they were taken to their unit in Tobruk by sea.

Captain (later Lt-Col) Gwyther, who had been OC of the Mechanical Transport Sec. left for a post on the staff of HQ AIF(ME) and Capt Gordon was promoted to command the section.

Major Bryceson, whose military knowledge had been of such value to us, was the SOME of the Sixth Division in Greece and Major Jones had taken his place after serving with the LAD of the Corps Engineers in the Lybian campaign. Captain Naismith who acted as 2 i/c until Maj. Jones arrived was posted to 1 Base Workshops at Tel el Kebir and Captain Knox took his post as OC of the G.E. Section. Capt. Mence was promoted to command the newly formed 3 Aust. Advanced Ordnance Workshops and Capt. Josua became OC. of 4 Rec. Sec. Capt. Beck was posted Senior Instructor of the workshop wing of the Ordnance School and Capt. Scott took his place.

The 2/3 Army Field Workshops, camped near us at Amyria, had embarked, in part, and sailed for Greece, been recalled; and was ready for the next move.

It was normal for a unit to have a period of rest after a campaign but. as ever, there was too much outstanding work in the area for a real let-up. Nevertheless, instead of the usual seven day week of duty (daylight to dark) efforts were made to give half-day holidays to groups so that they could visit nearby Alexandria. In addition, parties of men were allotted for duty with the detachment of I Advanced Ordnance Workshops which, under Major Samuels, was doing sterling major repairs in a large waterfront building in Alexandria.

The work range included more than the usual weapons, carriers and other vehicles but urgently needed hospital gear for the 9 AGH was made from scrap. It is worthy of note that, through all campaigns, every request for aid. whether from Navy, Army or Air; whether from Australian, British Polish or Free French, had been met to the unit's best ability. A new, bigger load came when the South African Division arrived from Abyssinia and Eritrea. Their vehicles were in a shocking state and quite unfitted for their urgent move to Mersa Matruh. From dawn to sunset men worked without rest to get these equipments in order. The cooks carried meals to the work area while the craftsmen stopped briefly at their tasks overhauling the defective armour, trucks and weapons. After little more than two weeks the division was able to move west in a fair mechanical condition.

In the meantime 5 Recovery Section was fighting with the 6 Aust Division in Greece and accounts of their work and that of the LADs (these included men from the 2/2: in original plans the LADs were a part of the A.Fd.Wksps.) made us proud of our m tes and their efforts. Part of the story began when Lieut. Webber had a recovery post at Servia, near the famed Mount Olympus, when the Section HQ was at Elissan. The retreat began past Larissa and Lamia. At about three miles south of Lavadia the full section spent two full days on road patrols and on recovery of vehicles and equipment of the force. On 22 April, orders were given to destroy machinery, M.T. stores and all equipment except a number of oxygen and acetylene welding bottles. Two more difficult days brought them to Magura, west of Athens, when all transport other than vans was destroyed. On 25-26 Apr. the section came to a site near Napthalion and on 27 April 700 men, including 47 from the unit boarded a barge which remained at a beach I2 miles to the north during the day. At night they left for a rendevous with a destroyer but it was not contacted. The barge passed then southward for 65 miles in search of a cruiser that, also, could not be found. It then put ashore, was bombed and put out of action. At night (30 April) the Isthmus was crossed and the men boarded HMAS Perth next day. Some 20 of 5 Rec. Section were taken prisoners.

Those of us at HQ and other sections of the unit knew nothing of events. I visited Kantara hospital and talked with a man of 5 Rec Sec but he had been wounded before the retreat. The O.C. and 3 others, arrived at Alexandria, told part of the story, and those landed after in Palestine still more. Later, after the release of these grand men from Germany, I learnt still more of this campaign which, at the time, appeared so valueless but later showed its worth for it delayed the attack on Russia and perhaps led to those heavy losses which Winter, as a Russian ally, caused to the Nazis. The German losses on Crete eliminated for the duration their 'Crack 'airborne formation.

The other absent member, '6 Recovery Section', was besieged in Tobruk. Their site was at the windmill and with craftsmcn of the 2/1 Army Field Workshops and the LADs helped in the successful defence of the fortress.

The rest of the unit continued to work in the Amyria site. The ever present worry of desert grit, shortage of key needs, very high mercury readings (120 degrees in the orderly room tent); and heavy night raids with the 'overs' dropping in the camp area added to the local atmosphere.

On 7 June 4 Rec. Sec. and a party from Main Shop left for Palestine. Two days later about 250 men left Alexandria by rail and, on the same day, the main convoy of heavy trailers and lighter vehicles travelled as far as Tel el Kebir. The next day they crossed the canal at Kantara and the desert road of Sinai, arriving at Barbara 11 June.

The 'mix-in-place' road across the desert was new to most and the change in road direction at peaks instead of valleys was unusual, to say the least. Often the unseen left or right turn concealed a high sanddrift

Few were unaffected by this historical land. The journey of the Infant Jesus; the expeditions of Rameses, Alexander, Caesar Tamerlane and our own Light Horse of the 1914-18 War seemed close to us.

We shared the Barbara camp with the unit building a rail along the coast. This RAE

Railway Construction Unit's workings had exposed part of a walled Roman town by our camp. Lead coffins and water pipes, cooking pots of bronze and a short sword were in the list of finds. In still older times this was in Philistine of 1000 B.C. It had been settled by European (Aegean) people who were, it is believed, the first workers in iron. This highly civilized people kept their independence for centuries but were conquered for a short time by King David. In the long run they were absorbed by the surrounding people and their country from Gaza to north of Jaffa passed successively to many other conquerors. It is curious that we, technicians of one of the world's new countries, should ply our skills in this land so rich in technical pre-history.

Work still continued but without intense pressure so normal in the Western Desert. Typical of the country, in a road cutting through an ancient rubbish tip at Ascalon, near our camp, in ages old refuse, the well defined layers of broken pottery were set in soil with Byzantine at the top, terracotta coloured Roman below it, dark biscuit thin Grecian next then the earlier civilizations in still lower layers.

Major Jones commanded the unit when I replaced Col. Jillett, (an accident casualty) as COME 1 Aust Corps at Nazareth and served with the Control Commission and other extra-regimental work.

It is preferable to study official histories for the full story of a campaign and this unit account deals with field maintenance primarily. The force that crossed over the border comprised the 7 Aust Division, the two-brigade 6 British Division (without artillery and with few ancillary units), and an Indian brigade. In addition, 13 Lancers attacked Deir ez Zor. A brigade of the Free French Forces on the right flank and the Arab Legion completed the force.

The allied forces were not provided with normal airforce support nor did they have

3

tanks for token resistance only was expected and the bitter fighting that ensued was a surprise.

The 2/3 Army Field Workshops with its three recovery sections carried out the major field repair load but the two brigades of the sixth division had their own efficient brigade workshops.

A detachment of 4 Rec Sec. relieved the LAD of 6 Divisional Cav. Regt, and gave a well earned rest to troops who had been in almost continuous operation from Dec 1940. No 6 Rec.Sec.was sited at H4, on the oil line from Irak, where they aided an Indian division in its long move south.

When the armistice was signed on 12 July 1941 the work load was increased not cnly by usual campaign casualties but thousands of vehicles, including numerous tanks from the Vichy forces, were added.

This equipment went over to the Free French Forces.

The main body of the unit moved north through Damascus (oldest continuously occupied city of the world) into the fine Ablah barracks 3000 feet up between the Lebanon and Anti Lebanon ranges. Fifth Rec. Sec. moved to Damascus and Four occupied Parc Auto, in Beyrout, where the O.C. controlled also some 800 Lebanese tradesmen for the FFL. Sixth Recovery moved to Maaque, north of Baalbek.

The workload was heavy but relief from the seven day week, so long accepted as normal, was a tonic to all. Members of the unit, interested as technical men in a wide range of study, enjoyed the historical land. Tutors from Beyrout University aided our own with instruction in many subjects.

On Jan.5 1942 I left a snow-bound unit. Lt-Col. Hayman became C.O. The freeze did much damage to vehicles and roadside welds were done to over 100 cracked blocks. They left Syria on 27 January and arrived at Port Said on 20 February.

## Chapter VI COLOMBO, HOME AND REORGANIZATION

After the move from Port Said to Suez the unit embarked on S. Ss. Westernland Clan McTavish, Gogra and Cromartz and sailed on 13 March 1942; called at Aden on 18 th, and arrived at Colombo on 27 th. March. The harbour there was the rendezvous for bomb-ravaged ships from the Indies and Malaya and the first large scale air attack coincided with the arrival there.

The unit camp at Maddagedera providen a high-grade engineering centre for the force. It was a period for all of hard work intense heat; followed by torrential rain.

The unit embarked on S.S. EKMA, of 2051 tons, in mid-July and arrived at Mangalore in August. After home leave the unit moved to Singleton where it became the 2/2 Infantry Troops Workshops and the 2/119 and 2/120 Brigade Workshops. So ended the first three years of war for one technical unit and the lessons learnt are worthy of review. The following may exemplify some of these lessons:-

Enemy forces, from their campaigns in Africa, Spain and Eastern Europe had invaluable basic experience for design and repair techniques. Large scale manoeuvres in peace, though costly, could have given us knowledge which we had to learn the hard way later.

The repair and recovery in forward areas requires men of the highest technical skill and initiative and they must be well trained militarily

Repair well forward is often the only possible repair if the equipment is heavy and, even with lighter weapons and stores the very great number in the pipeline of supply to the forward area usually make it imperative to repair in the field.

