



AEME/RAEME ASSOCIATION OF SOUTH AUSTRALIA INC.

25 Deepdene Crescent
O'HALLORAN HILL SA 5158
Phone: (08) 8381 3644

MARCH 2004 NEWSLETTER

Patron - Honorary COLCOMDT (RAEME) Northern / Central Regions
LTCOL Chris Wrangle (Rtd)

COMMITTEE OF MANAGEMENT

Executive Officers

President	- Mike Culley	Ph: (08) 8294 3820
Vice President	- Gary Howell	Ph: (08) 8262 3974
Secretary	- David Turner	Ph: (08) 8381 3644 (after hours)
Treasurer	- Keith Tainsh	Ph: (08) 8326 2581

Ordinary Officers

- John Howard	Ph: (08) 8447 7681	- Eddy Kaminski	Ph: (08) 8261 1446
- Eric Kelly	Ph: (08) 8556 6568	- Bob Killoran	Ph: (08) 8270 2222
- Frank Owen	Ph: (08) 8384 7291	- WO2 Shane Buckley	Ph: (08) 8305 7023 (work)

Auditors

- Robin Maslen OAM	Ph: (08) 8296 2768	- George Robinson	Ph: (08) 8272 9872
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Association Historian

- Eddy Kaminski Ph: (08) 8261 1446

AEME/RAEME Association of South Australia Inc. Web Site

www.ausmil.com/users/raasa

Webmaster

- Wayne Birch e-mail - wbirch@adam.com.au

Dear Members,

As advised in the January Newsletter, the Committee of Management, in conjunction with 107 Field Workshop 9CSSB at Warradale Barracks, are well advanced with preparations for the **2004 RAEME Mixed ANZAC Reunion**. It will be held in the combined **Warradale Area Officers' and Sergeants' Messes** on **Saturday 17 April** (an Invitation is attached to this Newsletter).

MAJ Andrew Kelly, RAEME Regional Representative Central Region and Battery Commander of Support Battery 16AD (the Workshop) at Woodside Barracks, has advised that the **2004 Central Region RAEME Officers', WOs' & SNCOs' Formal Dinner** will be held in the **Officers' Mess** at **Woodside Barracks** on **Saturday 19 June 2004**. Transport will be provided from Keswick Barracks.

MAJ Richard Moyses, Officer Commanding 107 Field Workshop 9CSSB at Warradale Barracks, has advised that the **2004 RAEME Corps Birthday Family Function** will be held in the combined **Warradale Area Officers' and Sergeants' Messes** on **Sunday 28 November (tentatively)**.

Please mark these dates in your Diary and make every effort to take part in these activities to help promote the Corps of RAEME in South Australia.

DIARY DATES 2003

<u>Activity/Function</u>	<u>Date</u>
- Fort Largs Guns Restoration	Saturday 3 April
- Committee of Management Meeting	Thursday 15 April
- 2004 RAEME Mixed ANZAC Reunion	Saturday 17 April
- 2004 ANZAC Day March	Sunday 25 April
- Fort Largs Guns Restoration	Saturday 5 June
- Committee of Management Meeting	Thursday 17 June
- 2004 Officers, WOs & SNCOs Formal Dinner	Saturday 19 June
- Fort Largs Guns Restoration	Saturday 7 August
- Committee of Management Meeting	Thursday 19 August
- RAEME Luncheon	Tuesday 14 September
- Fort Largs Guns Restoration	Saturday 2 October
- Committee of Management Meeting	Thursday 21 October
- 2004 RAEME Corps Birthday Family Function	(tentative) 28 November
- Fort Largs Guns Restoration	Saturday 4 December
- 2004 Annual General Meeting	(tentative) 12 December

COMMITTEE OF MANAGEMENT MEETING

The next Committee of Management meeting for 2004 will be held on **Thursday 15 April** at 7:30pm in the **Warradale Area Sergeants' Mess** (southern side of the oval, first building from the south west corner). Entry to Warradale Barracks is through the Oaklands Road gate.

All members are very welcome.

2004 RAEME MIXED ANZAC REUNION

As mentioned in the January Newsletter, permission has been granted for our Association to conduct the 2004 RAEME Mixed ANZAC Reunion in the combined **Warradale Area Officers' and Sergeants' Messes** (southern side of the oval, first building from the south west corner), on **Saturday 17 April** commencing at 7:00pm. Format will be similar to last year with a BBQ Meal available from approximately 7:15pm to 8:15pm. Meal Tickets cost \$5, which includes entry in a Meal Ticket Raffle (the prize will be a bottle of 2003 RAEME Corps Port). Refreshments will be available from the Bar in the Sergeants' Mess. A "Remembrance Ceremony" will be held at 9:00pm commencing with the "Last Post". The function is expected to conclude at approximately 11:30pm.

This function is for both serving and ex-serving members and their partners and friends. It will be an opportunity to renew old acquaintances and reminisce. Assistance will be required with Set Up, cooking the BBQ, selling Meal Tickets and Raffle Tickets and Clean Up. **If you can help in any way please let me, David Turner, know on phone (08) 8381 3644, after hours.**

An Invitation with all the details is attached to this Newsletter.

Please ring David Turner on (08) 8381 3644 (after hours) before Saturday 10 April and let me know whether you will be attending and who your guests will be!

If the Security Level at Warradale Barracks increases, it may be necessary to either supply a list of names of those attending to the Security personnel on the Gate, or to advise those attending of a change of Venue. In order to keep costs under control the Committee of Management has decided that

WE WILL ONLY CATER FOR THE NAMES NOTIFIED. Please make every effort to take part in this function to help promote the Corps of RAEME in South Australia.

ANZAC DAY 2004

The ANZAC Commemorative March will be held on Sunday 25 April commencing at 9:30 am.

The AEME/RAEME Association of South Australia will be led this year by our President, Mike Culley. Bob Matthews and Frank Owen will carry the Association Banner. Any Anzac Day March queries should be directed to Mike Culley on phone (08) 8294 3820, or our March Marshalls, John Howard on phone (08) 8447 7681 or Bob Killoran on phone (08) 8270 2222.

The Assembly Point for Group 6 is the same as last year, ie the eastern side of Pultney Street with head on Rundle Street and extending south to the Grenfell Street intersection (see map).

The route is also the same as last year, north along Pultney Street, west along North Terrace and north along King William Road to the dispersal area in Pennington Gardens.

Salutes (the Association Banner is to be lowered on “eyes right”) are to be paid at the National War Memorial and the South African War Memorial on North Terrace, and the V.I.P. Saluting Base on the eastern side of King William Road.

As happened last year, MAJ Andrew Kelly, the RAEME Regional Representative in Central Region and Battery Commander of Support Battery (the Workshop) at 16th Air Defence Regiment has offered a vehicle to follow directly behind “AEME/RAEME” to allow WW2 veterans who can no longer make the distance the opportunity to participate (thanks, Sir).

Please contact me, David Turner, on phone (08) 8381 3644, after hours, to reserve a seat (the vehicle will return passengers to Pultney Street immediately after AEME/RAEME has been dismissed at the end of the March).

All persons who have:

1. Served in the Armed Forces of the Commonwealth of Australia, British Commonwealth countries or any other country which, at the time of such service, was an ally of Australia, or
 2. Been allotted duty in the March,
- are eligible to march.

Children are not permitted to participate in the March other than those who are Next-of-Kin of a deceased veteran and are 13 years of age or over. Those participating are required to wear the medals of the deceased relative (over the right breast) and are required to march with the “Next of Kin” (Group 12 - Assembly Point on the eastern side of Pultney Street with head on Grenfell Street) or, if a Legacy Ward, with “Legacy” (Group 1 - Assembly Point on the southern side of North Terrace 50 metres east of Kintore Avenue).

The participation of the next-of-kin in the Anzac Day March is a vexed issue. The RSL policy has been and remains, that next-of-kin marchers shall have reached their 13th birthday and march within Group 12. It is expected that one next-of-kin will march for a deceased family member unless, in extraordinary circumstances, a carer for the next-of-kin marcher is required.

Next-of-kin marchers shall, wherever possible, wear the service medals of their deceased relative on their right breast and must always be dressed in a manner appropriate to a march of this nature.

Whilst policy is that the next-of-kin will only march within Group 12, the RSL recognises that certain exceptional circumstances may exist within individual units, which may prompt units to invite selected next-of-kin to join them. Whilst not encouraging or condoning this practice, the RSL recognises the unit’s right to decide upon and implement such exceptions if they so desire.

The recognition of these exceptions should not be viewed as any change in the RSL policy that has existed for many years.

Free car parking facilities will be provided upon display of Service Medals or RSL Badge at:

1. Gawler Place Car Park 5:15am - 6:00pm (No entry/exit during March 9:00am - 11:00am)
2. Hungry Jack’s Car Park 8:00am - 6:00pm (No entry/exit during March 9:00am - 11:00am)
3. Harris Scarfe’s Car Park 8:00am - 6:00pm

Toilet facilities will be provided as follows:

1. Council toilets in Hindmarsh Square
2. Ground floor level Hungry Jack’s Car Park
3. Austin Street corner Pultney Street (portaloo x 1)
4. North Terrace opposite Pultney Street intersection (portaloo x 1)
5. Kintore Avenue opposite State National War Memorial (portaloo x 2)
6. South eastern side of City Bridge for WW1 veterans and VIPs
7. Rear of Adelaide University Oval and the Adelaide Oval
8. Portable toilets will be provided by the Adelaide City Council at the south eastern corner of Pennington Gardens.

The Committee of Management has decided that **Association Members should meet after the March on the Parade Ground at Torrens Training Depot**. The RSL has now taken over these facilities and has arranged for Refreshment Stalls and Food Stalls to be set up. This decision was taken because the Keswick Barracks Sergeants' Mess has recently become a combined Officers' and Sergeants' Mess. At this time it is not known what the arrangements will be regarding access to this facility on ANZAC Day. CPL Craig Smith, PMC of Warradale Other Ranks' Canteen, has also extended an open invitation to Association members to meet in the Canteen from 12:30pm for a light luncheon, refreshments and traditional games.

2004 CENTRAL REGION RAEME OFFICERS', WOS' & SNCOS' FORMAL DINNER

MAJ Andrew Kelly, RAEME Regional Representative - Central Region and Battery Commander of Support Battery 16th Air Defence Regiment (the Workshop) Woodside Barracks, is organising the annual Formal Dinner for serving and ex-serving RAEME ARA and GRES Officers, WOs and SNCOs.

The Dinner will be held on **Saturday 19 June** in the **Officers' Mess at Woodside Barracks**. Transport will be provided from Keswick Barracks for Adelaide Plains dwellers.

A personal Invitation will be posted to all eligible Association members when the details have been finalised. **Mark the date in your Diary now! Please make every effort to take part in this function to help promote the Corps of RAEME in South Australia.**

FORT LARGS GUNS RESTORATION

The first Work Party was held on Saturday 7 February. It was discovered that the stuck bottom pulley and housing from the southern Ammo Lift, which had been soaking in a diesel/oil mix since the last Work Party of 2003, was still stuck! However, we took up Robin Maslen's offer to have a go at freeing the mechanism using the facilities of his son's workshop, and carried on with greasing and exercising all mechanisms.

Robin was successful in freeing the mechanism (thanks, Robin) so we intend to re-install the mechanism on the southern Ammo Lift at the next Work Party on Saturday 3 April. We also intend to grease and exercise all mechanisms. All members are most welcome to drop in for a chat. In case of inclement weather you can check with me, Keith Tainsh, on phone (08) 8326 2581 to see if it has been postponed.

- *Keith Tainsh*

RAEME PHOTOS

I have produced a Power Point presentation of photos depicting RAEME scenes from the mid 50's to the early 70's. Slides and photos have been provided from nine RAEME members to be scanned to create a slide show with 215 photos of RAEME soldiers and army vehicles on various army activities over this period. Those who attended the AEME/RAEME Association Birthday and AGM in 2003 will have seen the show.

I am willing to make CDs available to members for a small charge (\$10) and will donate some % to Association funds. Anyone interested in obtaining a CD should contact me, Robin Maslen, on phone (08) 8296 2768 or via email at rmaslen@ozemail.com.au.

I have also offered to put together another slide presentation but am looking for other interesting/unusual or funny scenes from events earlier than the 50's or from the 70's onwards. Photos/slides should have clear views of either personnel or army equipment with a small description of the names, dates and location of those in the photo so that the slide show can be annotated. Photos/slides will be scanned and returned to owners afterwards.

Please contact me on the above phone number or e-mail address, or by mail at 58 Hulbert Street, HOVE, S.A. 5048

- *Robin Maslen*

RAEME CORPS PORT 2003

The 2003 Port is named the "Directors Tawny" and the label on the back of the bottle lists the RAEME Corps Directors from the time the Corps was formed in 1942 to the present day. Cost is \$15 per bottle, which includes a 95 ml collectors miniature, as per last year.

If you would like to purchase some, please contact Keith Tainsh on phone (08) 8326 2581. If there are any left, they will be on sale at the **2004 RAEME Mixed ANZAC Reunion on Saturday 17 April.**

PICKING ON GLEN

A sergeant was addressing a squad of 20 and said: "I have a nice easy job for the laziest man here. Put up your hand if you are the laziest." 19 men raised their hands, and the sergeant, noticing that Glen hadn't raised his hand, asked, "Why didn't you raise your hand?" Glenn replied: "Too much trouble, Sarge."

A major is walking along with his aide. As young Glen salutes him he says "Same to you". His aide asks why he is saying this. He replies; "I was a digger once. I know what they're thinking when they salute me."

- *Courtesy "The Horse's Mouth" Winter 2003*

THE CENTURION ARMoured RECOVERY VEHICLE IN RAEME SERVICE

By MAJOR Paul Handel

Introduction

The Centurion Armoured Recovery Vehicle (ARV) Mark 2 served in RAEME for just over twenty years, from 1956 until 1977. During this time, some of them accompanied the tank deployment to South Vietnam between 1968 and 1971. A large, heavy vehicle with none of the power operated booms and anchor spades seen on today's recovery vehicles, they were none the less admired by their crews for their robustness.

RAEME also used one Centurion ARV Mark 1 which was acquired from New Zealand in 1969 and issued to the Armoured Centre Light Aid Detachment during the last years of the Centurion's Australian Service.

Centurion Tanks in Australia

The Centurion Tank family of vehicles was developed towards the end of the Second World War by the British as their first "universal" tank. It was meant to replace the myriad of light, cruiser, medium and heavy tanks then in service and to combat the current German tanks such as the Panther. The first prototypes arrived for trials in north west Europe just in time to see the end of the war.

The Centurion Main Battle Tank (MBT) was first introduced into Australian service late in 1951 and replaced the ageing Churchill tanks with which the 1st Armoured Regiment was equipped. The Centurion was the first tank in Australian service to be fitted with a fully stabilised gunnery system, and used the 20 pounder gun as its main armament.

An initial purchase of 60 Centurion Mark 3 tanks was made from the UK in 1949-50, and later in 1955-56 a second purchase of 57 Centurions was made. This second purchase comprised all Mark 5 models, identified by having a co-axial .30 inch machine gun, whereas the Mark 3 carried a co-axial 7.92 mm Besa machine gun. During 1955 and 1956, the Mark 3's were converted to Mark 5 standard by having the .30 inch MG fitted in lieu of the 7.92 mm Besa. Four ARV's were purchased in 1955-56, two in 1956-57 and four bridgelayers were purchased in 1961.

Centurion ARV Mark 2 Described

The Centurion ARV Mark 2 was a Centurion tank without a turret and main armament. In its place was a large box-like structure which housed the winch equipment. This armoured structure had a standard tank cupola mounted on the top left side and a double hatch on the right. Access doors were also placed in the rear of the structure. The entire top of the winch compartment could be removed to allow access to the winch. The space adjacent the driver had also been modified to mount an additional fuel tank.

The winch engine was a Rolls Royce B 80 8 Cylinder in-line petrol engine which drove a generator, which in turn provided electric power for the winch. The winch used a horizontal drum with 137 metres of 28.6 mm steel wire rope. The winch had a direct pull capacity of 30 tonnes, which could be increased by the use of snatch blocks carried on the vehicle.

A lattice boom jib crane was also carried on the tank, in two parts and mounted over the rear stowage boxes. The jib could be erected on the front of the hull, the base sitting in a special socket on the lower glacis plate. The jib, when assembled, was held in position with two stay ropes anchored back to each side of the vehicle. The winch rope was reeved from the winch compartment and over the fairleads at the front of the superstructure thence to the jib. The jib was actually rarely used in Australian service, especially after the introduction of the M543 wheeled recovery vehicle and the M113A1 Fitters Vehicle, both of which were equipped with hydraulically operated cranes.

A spade-type ground anchor was mounted on the rear of the hull, and fairlead assemblies allowed the winch to take pulls off the centreline. Various fittings on the hull allowed the return run of the winch rope to be anchored to the vehicle, and it had the ability to tow a laden main battle tank. The spade anchor was a large, robust unit, and owes its origins to the German Bergepanther of the Second World War, possibly the best armoured recovery vehicle developed during that period. A rear jib was fitted over the spade assembly, but this was not used for lifting purposes as was the front jib.

Centurion ARVs in Australia

The six Centurion ARV Mark 2 were purchased from the United Kingdom, and, unlike the MBTs which came directly from British Army stocks, the ARVs were taken from equipment specially set aside for sales to foreign customers. Hence the ARVs when acquired carried British registrations with an MS for military sales. They were given Australian Army Registration Numbers (ARN) on arrival in Australia and the table below shows the equivalent numbers:

Australian Army Registration Number (ARN)	United Kingdom WD Number	Australian Army Registration Number (ARN)	United Kingdom WD Number
169111	01 MS 45	169114	01 MS 44
169112	01 MS 43	169121	01 MS 97
169113	01 MS 42	169122	01 MS 98

ARVs were issued to the 1st Armoured Regiment Light Aid Detachment and the Armoured Centre Light Aid Detachment, both based at Puckapunyal, and to the RAEME Training Centre at Bandiana.

Centurions in South Vietnam

Australia first committed advisers to South Vietnam in 1962, and in 1965 the first combat troops were deployed - an infantry battalion with a troop of M113A1 Armoured Personnel Carriers (APC) in support. The infantry and APC components were increased over the next two years. For some time there had been a push to support the Australian Task Force with tanks, and although the commitment of tanks was postulated as early as July 1967, an official announcement was not made until October 1967. Frantic preparations were made, but shipping space and non-availability of trained personnel meant that initially only a "half squadron" was deployed. The unit was designated C Squadron (C Sqn) 1st Armoured Regiment and the full Squadron equipment comprised two command/control tanks and two M577A1 Armoured Command Vehicles in squadron headquarters, four troops of four tanks each, a Special Equipment Troop of two dozer tanks and two bridgelayers, all supported by two ARVs. A Forward Delivery Troop with 3 tanks as "in theatre" replacement vehicles was also deployed.

C Squadron was accompanied by two Centurion ARV Mark 2 vehicles. The vehicles first deployed to South Vietnam were ARN 169112, carrying the radio callsign 38D and ARN 169122 which used callsign 38B.

Early operations in 1968 after the arrival of the tanks in South Vietnam led to modifications being made by the workshops in theatre to improve the tanks' operational capability by lightening the maintenance load. The side bazooka plates were removed as well as the supports for them, as the vegetation was packing up between the hull and plates and causing

suspension damage. Although the bazooka plates fitted to the Centurion MBTs were removed after the first operations, they were still used on the ARVs until late April 1968.

Soon after the Centurion Squadron arrived in South Vietnam in early 1968, it became apparent that an armoured recovery vehicle would need to accompany troops on most operations. The nature of operations required that the tanks be accompanied by additional personnel, such as engineer mini teams, tracker dog teams, additional RAEME tradesmen, etc. Although the normal crew of a Centurion ARV Mk 2 was three - commander, driver and mechanic - by default the additional personnel needed on operations were carried by the ARV, and some form of armoured protection was needed for these soldiers.

Initially side protection plates for the rear deck were fitted to both ARVs, and a rudimentary shield was fitted to the commander's .30 inch Browning machine gun. Around early 1969 modifications for a wrap-around gun shield for the commander and a shield and gun mount for the operator to use another .30 inch machine gun were introduced. When 169112 was replaced in 1969 by 169113, the modifications were fitted to the new vehicle. It was considered by B Squadron 1st Armoured Regiment LAD such a necessity for these improvements to be fitted, that they produced a document detailing the work. It was hoped that vehicles could be so fitted in Australia before being sent to South Vietnam, and thus ease the workload of the already stretched frontline workshop. The Army did not want to have two standards for equipment and so did not act on the proposal.

As ARVs were commonly allocated to supporting single troops of tanks, they often came under fire, and they found themselves accompanying the tanks during assaults and using their machine guns to provide additional fire support.

In January 1970, B Squadron replaced by A Squadron, and the largest armoured force assembled by the Australian Army in South Vietnam took part in Operation Matilda, a sweep covering three provinces and which lasted 11 days. Eight Centurion tanks, together with a bridgelayer and ARV, 30 M113A1 APCs and some M548 Tracked Load Carriers borrowed from the US Army comprised the armoured component. In November, 1970 all available Australian AFVs congregated at Nui Dat to celebrate Cambrai Day. With 29 Centurions and 38 M113A1's assembled for the parade, it was the first time that the whole of Australia's armoured force in South Vietnam was assembled at the same time.

The Centurions were generally returned to Australia for rebuild after approximately 2500 miles in SVN, and 169112 was replaced by 169113 in the second part of 1969. It is thought that ARV 169111 replaced 169122 in late 1969.

169111 and 169113 remained in South Vietnam during 1969, and 169122 returned to South Vietnam in the latter part of 1970 to replace 169111. ARVs 169113 and 169122 remained on operational service in South Vietnam until the withdrawal of the tank squadron in September 1971.

The ARV Mark 2s were rebuilt along with the tanks, and all traces of modifications made in South Vietnam removed. The vehicles soldiered on until 1976 when the first Leopard ARVs arrived late that year. The Centurions were retired in early 1977, returned to storage at Bandiana and later sold.

Centurion ARV Mark 1

Although the design of a purpose-built ARV on the Centurion chassis began in 1951, the events in Korea where Centurions were first committed to combat with the British Army forced the introduction of a stop-gap machine. The Churchill ARV Mark 2 was introduced at the end of the Second World War and was just managing to support the new and heavier Centurion family. Some Centurion Tugs, tanks without their turrets, were used in Korea, but a winch capable ARV on the Centurion chassis was urgently needed, and so the Royal Electrical and Mechanical Engineers' (REME) 13 Command Workshop at Aldershot set about the task.

Using existing Mark 1 and 2 Centurion hulls, a superstructure was built over the turret ring, inside which was a winch rated at 18 tonnes capacity. The winch could not utilise a power take-off from the main engine and was driven by a separate Bedford six cylinder petrol engine from

the famous Bedford QL truck, which was still in front line service at the time with British units. An anchor spade was fitted at the rear, the design of which was based on the spade fitted to the Churchill ARV Mark 2. A cupola for the vehicle commander and a crew hatch were mounted in the roof, as were two hatches for accessing the winch and winch engine.

Production commenced at the 13 Command Workshop in 1951, and the vehicle was designated Centurion Armoured Recovery Vehicle Mark 1. The first eight vehicles were quickly despatched to Korea in 1952, where they were put to immediate use by the 5th Inniskilling Dragoon Guards REME Detachment and the supporting workshops. Further vehicles were built by REME workshops until 1957, by which time 180 examples had been built.

The Australian Centurion ARV Mark 1

During the late 1960s, the New Zealand Army decided to dispense with their Centurion tanks. In August 1968, the New Zealand Government advised the Australian Government that it was willing to transfer vehicles and spares of their Centurion fleet to Australia. As Australia was at that time heavily involved in South Vietnam the offer was given serious consideration. An Australian team visited New Zealand in October 1968 to inspect the vehicles, and it was decided to take the vehicles and a quantity of spares. The vehicles included one Armoured Recovery Vehicle. The ARV was a Mark 1 model which was a different model to those already in use in Australia. Unlike the gun tanks, the ARV had been in undercover storage and was in running condition. It had covered 1492 track miles since being rebuilt and the winch had only completed an estimated 50 hours work. It was priced at \$NZ 2600.

Arrangements for the purchase were completed and the tanks were shipped to Melbourne by LSM, arriving in January 1969. With a critical shortage of Centurion ARV Mark 2s it was decided to issue the ARV Mark 1 to the Armoured Centre at Puckapunyal in order to free up an ARV Mark 2 for training the next Squadron group for rotation to South Vietnam. Being an "orphan" did not matter so much in that case, and the ARV was pressed into service with the Armoured Centre Light Aid Detachment (LAD).

The ARV Mark 1 appears to have been built on a Centurion Mark 2 hull, initially given the War Department (WD) Number T 351718. It entered service with that wartime number converted to 03 ZR 66, and was allocated to the British Army of the Rhine (BAOR). It served in BAOR until January 1964 when it was sold to the New Zealand Government.

The Centurion ARV Mark 1 served at the Waiouru Camp with the Royal New Zealand Electrical and Mechanical Engineers in support of their 11 Centurion gun tanks. It was allocated the NZ Registration number NZ 31073. When it entered Australian service, it was allocated ARN 169123.

Numerous problems existed during its Australian service, particularly with the anchor spade and the draw bar connection. The pitching between the ARV and a casualty when being towed, particularly during turning and reversing, caused bending and breaking of the pivot pin draw bar. Also, the connector for the draw bar had to be removed to allow the spade to be lowered. An investigation was carried out into the possible remedies, and two solutions were proposed - to replace the entire anchor spade assembly with that fitted to an ARV Mark 2 or to modify the existing spade and fit a Mark 2 towing attachment. As the Centurion fleet was nearing the end of its service life, nothing was done to modify the vehicle and the ARV Mark 1 was returned to 31 Supply Battalion at Bandiana in 1975.

Preserved Centurion ARVs

The RAAC Memorial and Army Tank Museum is home to the Centurion ARV Mark 1, currently on long-term loan from Army Museum Bandiana, and to ARV Mark 2 169112, one of the first two ARVs deployed to South Vietnam in 1968. The Army Museum Bandiana holds another Centurion ARV Mark 2.

Author

Major Paul Handel is a RAEME officer posted to Army History Unit as the Manager of the RAAC Memorial and Army Tank Museum. Puckapunyal.

- Courtesy "RAEME CRAFTSMAN" Issue No.51 Summer 2003/4

COLONEL F B OLDFIELD, THE FIRST CO OF THE ARMY APPRENTICES SCHOOL

Mrs G Chapman the third daughter of the first commanding officer of the Army Apprentices School (AAS) has recently presented a duplicate set of his medals and military insignia to the Army Museum Bandiana. The medals are beautifully mounted and are displayed next to the honour board of all CO's of the AAS.

Frederick Bernam Oldfield was a soldier with an interesting career. He was born in Melbourne on the 19th September 1897 and enlisted in the Australian Imperial Forces on the 13th of October 1916, at 19 years of age. His civilian occupation was listed as "School teacher" and his enlistment form shows he had four years service with the school of cadets. He served with a number of Artillery units as a Gunner and Lance Bombardier. He served in France where he was listed as wounded in action - gas poisoning. After six weeks recovering in Southampton hospital he returned to the front in France. His total service with the AIF was two years, 322 days of which two years, 112 days were shown as service abroad. He took discharge in London on the 30th August 1919, where he received the sum of sixteen pounds deferred pay. He was awarded the British War Medal and the Victory medal.

After his discharge he remained in England where he gained degrees in Science and Education. After his graduation his first teaching assignment was at Trenton on Sea at a private grammar school. He returned to Australia in 1925, was married and spent some time as a resident master at St Peters College Adelaide before becoming resident master at Ballarat Grammar. He later taught at Scott's College Melbourne. He enlisted in the reserve forces and then moved to Sydney in the late thirties where he was employed as sub editor for the ABC. During this period he served with the Citizen Military Forces.

He re-enlisted in the AIF on 6th January 1941 with the rank of Lt and was on his way by the end of January to serve with 1 Advanced Ordnance Workshop in the Middle East. He was promoted to Capt in March and continued to serve in the Middle East until March '42. From there he served in the South West Pacific Area until February '44. He was a foundation member of AEME and then RAEME. At the end of the war when he decided to return to civilian street he held the rank of T/LtCol. He was awarded the 1939/45 Star, Africa Star, Pacific Star, Defence Medal, War Medal 1939/45 and the Australian Service Medal.

Prior to the Second World War a situation had developed where it was not possible to enlist sufficient qualified tradesmen for the Army requirement. A scheme did evolve for the training of apprentices whereby apprentices were attached to large army workshops and attended civilian technical colleges. After the war in a period of expanding industry and full employment, competition for skilled labour and trainable youth was more acute than ever. Investigations commenced and it became evident that a comprehensive training scheme was required, one which provided both civilian and military qualifications.

The document setting out the case for the establishment of a military technical training school was titled "Military Board Agendum No 173/1947 of the 20th October '47 - Formation of an Army Apprentices School" over the signature S F Rowell, Lt General VCGS. The project was considered at a Military Board meeting of 29th October '47, after extraneous aspects of the establishment of the school had been considered in more detail, the Honourable Cyril Chambers, Minister for the Army, gave his approval and within three months the school was founded.

In the meantime, Lt Col F B Oldfield, a technical officer and educationalist with eight years experience in two world wars and at the time conducting his own preparatory boarding school for boys at Wahroonga, NSW, was appointed the first Commanding Officer of AAS on 7 December '47. He immediately became deeply involved in the whole planning process with priority on locating a suitable site. The ideal site was seen as one that was isolated from camps and depots for adult soldiers.

In view of the limited range of choice, Balcombe had much to commend it. It was 36 miles from Melbourne, isolated but not too far from the city and with only two Army units, both schools,

already established in the area. Accordingly, the Army Apprentices School was established at Balcombe and Lt Col Oldfield took up residence at Balcombe in February '48.

Selection of apprentices began in May and on 2 August the first intake of apprentices took possession of the camp which during the Second World War had received the battle tired United States First Division straight from action against the Japanese in the Solomons.

The camp was badly run down, it needed renovation, maintenance and extensions. Trained staff and more equipment were both in extremely short supply. Post WW2 reorganisation of the Australian Military Forces was taking place and competition for men and materials was keen.

The opening of the new school before accommodation and equipment were prepared and before the establishment of trained instructors had been provided was a bold move. Perhaps not altogether justified in the circumstances, but Lt Col Oldfield argued that an early opening would give substantial impetus to its completion as a going concern and the securing of the necessary staff. In addition, it was accepted that a good deal of self-help on the part of the first intakes of apprentices in setting up the camp was inevitable. Reporting on progress during the first twelve months, Lt Col Oldfield stated in August '48 that the total enrolment of apprentices for the year was 63. Although it was decided to take the full planned intake of 150 in January '49, the CO expressed his relief that the actual intake was only 80, as building alterations had not even begun, furniture and floor coverings had not been supplied, staff had not been increased and the new number of students (80) seriously overtaxed available resources. It became common practice for apprentices to be tasked with all manner of jobs such as painting buildings, digging drains and this type of training was referred to as "Practical Engineering". In the CO's report dated 21 June '50 he stated "Our first intake boys (Electrical Trade Apprentices) will begin their last year's training without having set foot in a workshop or laboratory". During this period he was awarded the Australian Efficiency Decoration for his pre WW2 CMF service.

Times were tough, resources were scarce but when Lt Col Oldfield handed over command of AAS he had achieved excellent results and established the foundations for a school that supplied the Army with tradesmen for some 46 years. He was described as a wise and humble man of many and varied talents who was prepared to take what steps were necessary to ensure the initial success of AAS.

Lt Col Oldfield handed over command of AAS in July '52 and in September of that year he resigned from the army for the third time with the rank of Honorary Colonel. To make use of his journalist skills he was employed as editor of the Mornington Post for some years before he returned to Mosman where he taught at the TAFE until his death in October '62.

- *Courtesy "RAEME CRAFTSMAN" Issue No.51 Summer 2003/4*

ARMY SIGNS NEW FIVE YEAR TECHNICAL TRADE TRAINING CONTRACT

On 12 Nov 03, the Commandant of the Army Logistic Training Centre (ALTC), Colonel Garry Banister, AM and the Managing Director of Scientific Management Associates (SMA) Operations, Mr Owen Culley, marked the commencement of a new contract for the delivery of technical trade training for the Australian Army with the signing of the new trade training contract.

The five-year contract is the largest training contract within the Australian Army Training Command and is the culmination point of an exhaustive twelve-month tender, evaluation and selection process. SMA was able to successfully demonstrate to the Commonwealth that they could not only deliver quality trade training at ALTC but also do so in a cost-effective manner.

SMA is one of Australia's largest suppliers of integrated logistic support services to Defence. The company currently delivers technical training for the Royal Australian Navy at HMAS Cerberus, Victoria. The new contract with the Australian Army will be the company's largest trade training contract.

SMA staff will be integrated into one of ALTC's training divisions, Materiel Support Division which delivers Mechanical, Engineering, Electrical, Electronic, Construction, Ammunition and Armament trade training to defence personnel. It is responsible for Initial Trade Training, Initial Employment Training, Advanced Technical Training and Specialist Equipment Training.

In more recent times, Materiel Support Division has also been responsible for the initial trade training of Royal Australian Airforce Ground Support Equipment Fitters and Royal Australian Navy Calibration Technicians. At any one time there are in excess of 600 defence personnel undergoing trade training either in the Division at ALTC or at one of its On the Job Training locations in Sydney, Townsville, Brisbane and Darwin.

SMA will be responsible for assisting ALTC in providing training for 17 of the 40 courses currently conducted by Materiel Support Division.

ALTC has had a long history of using contractors to assist with the delivery of quality training for defence personnel. SMA is the third company to be contracted to provide trade training at ALTC and will take over from the current contractor, RMIT University in January 2004. RMIT University will continue to support ALTC in the provision of medical training for Army and Air Force Medical Assistants.

- *Courtesy "The Horse's Mouth" Winter 2003*

M113 AS3/AS4 - THE UPGRADE IS FINALLY UPON US

By Peter Dodgson, Technical Officer M113 Upgrade

Introduction

For those old RAEME soldiers among us, cast your mind back to 1983 when there was to be an upgrade of the M113 Family of Vehicles (FOV). During the next 19 years, there have been many projects for the upgrade of the M113 FOV, such as Project Waler, but with no end result to the vehicle. There is now a result.

As of July 2002 a contract was signed with Tenix Defence Pty Ltd to upgrade the M113 FOV. The first Demonstration Vehicles (DV) were trialed in Northern Australia during the period September to November 2003.

The Facts

The Army is upgrading 350 vehicles of the existing fleet. Production is scheduled to begin at Bandiana in 2006. Prior to the production, two DV's will be produced at Tenix's Adelaide facility to prove the product. This will be followed by 14 Initial Production Vehicles (IPV), which will undergo significant testing and trials. The last of these vehicles are planned to be introduced into service by late 2010.

Types of Vehicles

The 350 vehicles will be of an AS3 and AS4 standard. The main difference between these two designations is that the AS4 will be a stretched vehicle, containing an extra roadwheel station and a RGVM of up to 18.0 tonnes. The AS3 will not be stretched and have a RGVM up to 15.0 tonnes. Both variations will have the same powerpack and driveline and there will be only minor differences between the vehicles and variants.

The scope of the project provides the following variants:

- M113AS4 APC - Qty 171 (Personnel Carrier)
- M113AS4 AF - Qty 38 (Fitters)
- M125AS3 AM - Qty 21 (Mortar)
- M277AS3 ACV - Qty 43 (Command Post)
- M577AS3 AA - Qty 15 (Ambulance)
- M806AS3 ARVL - Qty 12 (Recovery)
- M113AS4 ALV - Qty 50 (Replacement TLC)

The vehicles basically look the same as the original, with the exception of the ALV (Armoured Logistic Vehicle) which is the replacement for the TLC.

The Upgrade

The vehicles will be upgraded with the following hardware:

- **Powerpack**
 - MTU 199 Engine producing 260 kW
 - ZF automatic transmission with 6 forward and 2 reverse gears
 - A true pivot turn is incorporated

- Integral hydraulic steering system
- **Braking**
- External to the power pack disc brakes
- Foot pedal (laterals are replaced by a steering yoke)
- 18 tonne braking system, hydraulic handbrake for AS4
- 15 tonne braking system, hydraulic handbrake for AS3
- **Suspension**
- A2 suspension
- New torsion bars
- 4 shock absorbers per side
- **Driveline**
- Upgraded Final Drives
- One Propshaft and one Coupling transfer drive
- **Track**
- The DVs and IPVs will be fitted with United Defense LP T150F Track System
- The AS4 utilises 145 track links
- **Fuel System**
- All vehicles will have two external fuel tanks except the ALV and the ARVL
- An electric fuel pump
- **Turret**
- Tenix are designing a new turret for the AS4 APC
- Hand held duplex for transverse and elevation control of turret
- Commander's Sight
- 50 Cal QCB
- **Armour**
- The fleet will be fitted for appliqué armour and spall curtains
- The fleet will incorporate enhanced mine protection components
- **Electrical**
- 4 Batteries in two sets
- Starting Batteries / Turret Batteries
- Drivers Night Viewer (DNV)

Conclusion

The APC Upgrade is still in its infancy, but will deliver a modern, upgraded vehicle in the near future. For further information feel free to access the following directory:
<http://lsdweb.lsd.defence.gov.au/land106.htm>

- Courtesy "RAEME CRAFTSMAN" Issue No.51 Summer 2003/4

HONOURS AND AWARDS

Bob Killoran has advised that the mailing address for all queries regarding medals is:

Directorate of Honours and Awards
 Department of Defence
 Locked Bag 2003
 COOMA NSW 2630

WEB SITE ADDRESSES

RAEME Corps Web Site:	www.defence.gov.au/armyweb/sites/raeme
AEME/RAEME Association of SA Inc:	www.ausmil.com/users/raasa
AEME/RAEME Association - ACT:	www.members.austarmetro.com.au/~lwedd/raeme
RAEME Association NSW Inc.	www.raemensw.com
The RAEME Association (Vic) Inc:	www.nex.net.au/users/vraeme (under construction)
The RAEME Association of WA Inc:	www.redbackwebs.com.au/raemewa
106 Field Workshop	www.106fdwksp.com
The RAEME Association of QLD:	www.raemeqld.org

National Service Association: www.nasho.asn.au
 Vietnam Veterans Federation: www.webmaster.net.au/vvf
 Department of Defence: www.defence.gov.au
 World War II personnel details: www.ww2roll.gov.au
 Australian/Commonwealth Honours: www.itsanhonour.gov.au

If there are other Web Sites that you know of that may be of interest to other members, please let me know. If any of the Web Sites listed are not working please let me know.

RAEME CORPS ITEMS

I visited the Corps Shop in the Army Museum at Bandiana early in January 2003. Below is an up-to-date list of RAEME Corps Items held by the Museum and their costs. I bought one of each item that I did not already have so that I can set up a display of most of the items below at the RAEME Mixed ANZAC Reunion together with a supply of order forms (the items will not be for sale as they belong to me, not the Association).

Folio 9	RAEME Prince Philip Banner Parade print (unframed)	\$5
Folio 19	RAEME Coasters (Pewter - 2 per pack)	\$8
Folio 30	RAEME Stubby Holder	\$7
Folio 31	RAEME Corps Plaque (3 styles)	\$40
Folio 39	RAEME Coffee Cup	\$7
Folio 40	RAEME Mouse Mat	\$6
Folio 57	RAEME Thermal Mug	\$15
Folio 60	RAEME Book "Craftsmen of the Australian Army"	\$45
Folio 61	RAEME Tie	\$25
Folio 70	RAEME Statue "Craftsman"	\$85
Folio 101	RAEME Key Ring (Australian Map)	\$5
Folio 102	RAEME Fridge Magnet (Australian Map)	\$3
Folio 115	RAEME Tie Bar	\$8
Folio 116	RAEME Tie Tack	\$7
Folio 125	RAEME Mug Khaki	\$12

If you are interested in purchasing any items, phone *Army Museum Bandiana* on (02) 6055 2525, Monday to Friday between 8:00am and 4:00pm on fax them on (02) 6055 2886. The prices include GST, they do not include postage and handling, however they will tell you how much your order will cost when you ring to enquire. They will accept all normal forms of payment including Money Order, Cheque, Bankcard, Visa and Mastercard. The Museum display is not bad either, so if you are over that way drop in and have a look around.

MEMBERSHIP

New Members

On behalf of the Association, I would like to welcome the following new Members:

Shane Buckley, Tony Gow and Tony Hinton

I apologise to Paul Birk who I welcomed as a new Member in the last Newsletter (I wrote Peter instead of Paul).

Subs are still \$5 for one year or any multiple thereof eg \$20 for four years. Subs are due at 1 July in the year your membership is "current to".

According to my records, the following persons are financial members of the Association. The number in brackets is the year your membership is "current to".

Honorary Life Members

Reg Glass, Dutchy Holland, David Turner

Ordinary Members

Walter Ade (2006), Milton Ahrens (2005), Jeff Allen (2004), Ernest Atkinson (2007), Peter Badcock (2005), Joe Barton (2005), Richard Beare (2005), Paul Berk (2004), Wayne Birch (2004), John Black (2006), Helmut Bohn (2008), David Brand (2007), Bob Brown (2005), Fred Brown (2005), Shane Buckley (2008), Roger Burzacott (2005),

Nicholas Cashman (2004), Trevor Clerke (2005), Geoff Coat (2007), Brian Cogan (2006), Don Collins (2004), John Corkran (2007), Brian Cox (2004), Peter Cox (2007), George Craig (2005), Mike Culley (2007), Bob Davis (2007), Gavin D'Cruz (2004), Graham de la Rue (2005), Chris Duffield (2007), Robert Duffield (2006), Nick Ebbs (2006), Bluey Etheridge (2007), Kym Everett (2004), Andrew Ferguson (2007), Jim Fisher (2005), Brian Flavel (2006), Jan Gancarz (2005), Bob Gell (2004), Nick Gogilis (2005), Steve Gough (2006), Steve Gould (2007), Tony Gow (2008), Robert Hansford (2007), Jock Hart (2004), Don Harvy (2006), Arthur Hasse (2005), Greg Hay (2005), Norm Hay (2004), Colin Haynes (2006), Viv Helps (2004), Tony Hinton (2005), Brian Holmes (2008), Darryl Horner (2006), John Howard (2005), Gary Howell (2008), Tony Ivens (2007), Graham Janz (2007), Juris Jaudzems (2006), Jeff Johns (2007), Lindsay Johnson (2004), Eddy Kaminski (2006), Eric Kelly (2008), Bob Killoran (2007), Bob King (2004), Geoff Kohler (2007), Les Kovacs (2005), Grant Kuchel (2007), Alf Lee (2006), Lou Leeuwrik (2011), Ken Lorraine (2005), Greg Lowe (2007), Chris Macintosh (2010), A.D.Marks (2007), Trevor Martin (2007), Robin Maslen OAM (2004), Bob Matthews (2007), Fred McInerney (2006), Philip McKelliff (2004), Pete McKenzie (2007), Gordon Mead (2005), Jake Meaney (2004), Don Morgan OAM (2007), Richard Moyses (2006), Barry Naulty (2005), Ian Nicholls (2006), Murray Nitschke (2005), Jim Nurse (2005), Dave O'Brien (2005), Alex Oschmanns (2013), Mick O'Toole (2004), Frank Owen (2005), John Owen (2004), Dick Pailthorpe (2007), Doug Pammenter (2004), Nick Papanicolaou (2004), Geoff Parker (2007), Trevor Parrott (2007), Roger Parsons (2006), Lionel Penley (2005), Jason Polgreen (2004), John Raftery (2006), Harry Ralph (2007), Hank Ramm (2004), Ben Renfrey (2004), Lionel Renfrey (2007), Dave Renshaw (2006), Peter Reynolds (2007), George Robinson (2004), Bill Roch (2005), Greg Rosser (2007), Ray Ryan (2007), Perry Sangster (2005), Brian Sayers (2009), Barra Schmidtke (2007), Glendon Shaw (2007), Harold Shipp (2005), Robert Silcock (2006), Victor Sobotnik (2006), Walter Soroka (2006), Max Sparrow (2004), Debbie Spicer (2005), Ian Starick (2006), Murray Stock (2004), Donald Sutherland (2006), James Szpunar (2008), Keith Tainsh (2007), Ian Taylor (2007), Paul Teague (2005), Howard Terry (2008), Noel Thomas (2004), Dick Tischer (2007), Donald Tremethick (2009), Danny Trewick (2005), Joe Tuckwell (2007), Mark Van Oostveen (2004), Eugene Wasilenia (2006), Bruce Watson (2007), Graham West OAM (2006), Brett Wilkeson (2004), Craig Williams (2004), Warren Williams (2012), Alan Wilson (2004), John Wilson (2007), Betty Winstanley (2004), Curly Woolcock (2007), Pat Wright (2004), Brian Yelds (2007), John Zander (2004), Pete Zander (2007).

Associate Members

Marg Culley (2005), Anne-Michelle Howell (2006), Joan Lorraine (2006), Judy Turner (2004).

CHANGE OF ADDRESS

Please inform me or a member of the Committee of Management of any Change of Address. This will ensure that you receive the latest copy of the Newsletter.

VALE - LEST WE FORGET

Elizabeth Julia Anne "Libby" Patti, ex 4 EME Services Unit, and then 107 Field Workshop, passed away on 5 February 2004, aged 41 years. Although not a member of our Association, she married Mal Daniel, also from the Workshop and a past member of our Association, in mid 1985. They had one daughter, Jade. Unfortunately, Libby and Mal split up and he moved to the USA. We extend our sincere sympathy to her family.

ARTE et MARTE

(Corps Motto: With Skill and Fighting)

David Turner

Hon. Secretary