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Editorial

WELCOME to the first issue of the *Journal* published in the larger A4 style format.

To those of you, who think the format should stay as it was, please look at the back cover of this issue which shows some of the changes that have taken place to the front cover of the *Journal* over the last one hundred years or so.

I am grateful to the members of the Journal Review Working Group who gave many hours of their own time analyzing what you, the readership wanted.

On many occasions over the last two years members have had the opportunity to comment on the proposed changes. In outline they found little wrong with what was being produced and I have implemented the minor changes recommended by the working group and accepted by Council. Increasing the size of the *Journal* will give us greater flexibility in how we present articles, photographs, maps and charts, and in the future, perhaps in a slightly less austere and more readable format.

As always we are totally dependant on members, and non members continuing to produce articles for publication. Please keep them coming.

I would welcome any other articles from the serving Corps, especially TA, who have recently been employed on Full Time Regular Service (FTRS). Also, please note that the guidelines for authors have been amended.

I have included in this edition some of the Korean and other articles which were held over from the previous *Journal* due to the major section on Op *Telic*.

Please visit the Institution web site, inst-royal-engrs.co.uk where you will see details of the Institution, forthcoming Joint Profession Meetings (JPM) and how to purchase some of the publications sponsored by the Institution.

Guidelines for Authors

The Editor is always pleased to consider articles for publication in the Journal.

Subject. Articles should have some military engineering connection but this can be fairly tenuous, especially if an article is well written and interesting.

Length. Articles of any length are considered but should normally be between 1500 to 5000 words. About 1200 words covers one page less photographs.

Copy. One copy of the text should be submitted, together with a head and shoulders photograph of the author plus a short pen picture and any other illustrations.

Clearance. Articles must be cleared by an author's CO where applicable.

Copyright. If an article has been published elsewhere, copyright clearance must be sought by the author before submission. Where necessary copyright clearance on photographs, maps or illustrations must also be obtained prior to submission.

Photographs should, if possible, be of good quality with sharp definition, and have appropriate captions. Files from digital cameras can be used providing they are taken with a camera capable of producing high quality images. The files should not be altered in any way prior to submission and they MUST NOT be embedded in the document. Digital images can be sent via email to assist.sec@inst-royal-engrs.co.uk or on a CD.

Rewards can be generous. The publications committee has about £350 in prize money for each issue plus valuable annual prizes. All authors receive £20 to help cover costs.

Pseudonyms will not be revealed by the Editor under any circumstances.

Contributions should reach the Editor by:

11 June for the August 2004 issue. 8 October for the December 2004 issue.

Submissions before the deadline are particularly welcome.

THE ROYAL ENGINEERS JOURNAL

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Contents

1	Editorial	2
2	Dhi Qar 2003	
	Brigadier B J Le Grys MBE	4
3	THE KOREAN SERVICE CORPS WITH THE ROYAL ENGINEERS, 1952-53	
	King Sugar Charlie	9
4	DOES BATUS MAKE A DIFFERENCE TO WARFIGHTING OPERATIONS?	
	Major M Budden MBE	12
5	TRAINING JUNIOR ROYAL ENGINEER COMMANDERS TO OPERATE IN THE COMBINED ARMS ENVIRONMENT	
	Major S G Tenison	16
6	Fort Chabai	
	Lieutenant Colonel P R Burleigh	18
7	150 Years of the Red Cross	
	Major T F Croxall	23
8	CARPE DIEM PART II (FIRST PART PUBLISHED IN AUGUST 2003)	
	Colonel W G A Lawrie	25
9	Lichfield? Where's That?	
	Captain S P Ash	27
10	REMINISCENCES OF THE WAR AGAINST JAPAN	
	J R Harris	
11	A Letter to a "Dukies Son"	
	Colonel E J Sharp	37
12	We've Been Here Before !! An extract from One More River to Cross	
	Colonel J Joiner	
13	The Flight Departing from Gate 3	
	Major S G Tenison	
14	ACCOUNT OF THE CONSTRUCTION OF PIONEER AIRSTRIP AND BRIDGE AT FORT SHEAN, PAHANG, MALAYA	
	Second Lieutenan K W Newham RE July 1954	
15	A Forgotten Episode – The Royal Engineers and Submarine Mining 1870 to 1904	
	T Powell	49
16	RANDOM THOUGHTS FROM A RETIRED RATE-THINKER	
	Brigadier J H Hooper OBE SBSTJ	56
17	REAR BASED INFRASTRUCTURE SUPPORT TO OPERATIONS	~ ~
10	Lieutenant colonel J F Pelton MBE	
18	THE KUN UP TO THE KOREAN WAR	(0)
10	Brigadier J B Wilks CBE	
19	MEMOIRS	<i>C</i> A
	Brigadier P W A Holdsworth	
	Lieutenant Colonel A D Hunter DSO [*]	
	Brigadier J F M Gear UBE	
20	Major K Higton MU	
20	UUKKESPUNDENCE	
21	KEVIEWS	
22	ABBREVIATIONS USED IN THIS JOURNAL	/6

Dhi Qar 2003

BRIGADIER B J LE GRYS MBE BA



At the time of writing this article Barry Le Grys was serving in Headquarters 3rd (UK) Division as Deputy Chief of Staff (DCOS). He is now serving as Chief Engineer Headquarters Allied Rapid Reaction Corps, hoping for another chance to help reconstruct a state in an interesting part of the world.

THIS article was prompted by the August 2003 Edition of the *Journal* which contained two articles on Iraq, Mesopotamia 1914-18 and Iraq in WWII. At the time of reading I had just returned to Basrah International Airport having spent two highly stimulating months as acting Governorate Co-ordinator in the land between two great rivers that now makes up the Province of Dhi Qar in southern Iraq. I emphasize this piece should be seen as a personal snapshot of how events unfolded in this fascinating part of Iraq through the late summer months of 2003.

By mid July I was DCOS of a Multi National Division with no Division Support Group but directing a Multi National Joint Logistic Co-ordination Centre that was charged with deconflicting logistic activity and building co-operation between the Division's contributing nations. Surrounded by professional logisticians from all three services and six nations, in an operational theatre, my weaknesses were potentially to be more exposed than I cared for. I was saved by an organization with more immediate shortcomings than my own.

The Coalition Provisional Authority (CPA), responsible for the civil lines of operation in the Coalition campaign plan, could find no one to act as its representative in Dhi Qar until late September. The Commander found this unacceptable and so a territorial officer, two drivers (one territorial) and I found some civilian clothes and were dispatched to the Province using two Discovery Land Rovers. Our task was to set the conditions for the arrival of the Governorate Co-ordinator proper so he could start his work at a reasonable pace; the CPA having already found itself behind schedule and the military being at risk of failure as a result. The CPA supporting staff to the Governorate Co-ordinator had not even been nominated but there was the Italian Civil Military co-operation team to help and five members of the Iraqi Reconstruction and Development Council (IRDC). The IRDC were Iraqis who had left in the early nineties and returned to advise the Coalition on institutions and culture. They proved invaluable in explaining the way the old Regime had worked so we were better able to understand how to implement change. A local governance advisor sponsored by US Aid joined us shortly. Two interpreters were quickly identified and the camp cots were soon up in the late Mayor of An Nasiriyah's house. A prominent Baathist, he no longer had need of it!

Dhi Qar the Province, slightly larger than Yorkshire, lies mostly between the sweet water of the River Tigris and the salt water of the River Euphrates. Its Provincial Capital, An Nasiriyah, lies on the main route from Al Basrah to the holy city of Najaf, and on to Baghdad. The population of the Province is about 1.5 million with agriculture being the main source of income. The Province is famous for its sheep, but cattle and buffalo are also raised. Vegetables, rice, wheat, barley and dates are cultivated. And of course, there are some camels. The Province is full of Sumerian history with a multitude of rich archaeological sites. The most famous being the four thousand year old city of Ur, birthplace of Abraham, and still only partially explored. As for industry, there is an aluminium works, a cable making factory and a textile factory; all the raw materials being brought in from elsewhere. They supported several thousand workers on the State Owned Enterprises payroll but had seen little or no investment in the last fifteen to twenty years and were now broken after being badly looted. There is a power station that ensures An Nasiriyah and the main towns surrounding had a good supply of energy so long as the flow of crude oil from Basrah to fuel the station was not stopped. Thankfully it flowed more often than not. There was also an oil refinery which turned crude oil to benzene, diesel and kerosene. This depended not only on the supply of crude but also on the availability of various additives. Unfortunately these ingredients were in short supply and there was a benzene crisis for a couple of weeks. However, the recently arrived Italian Brigade, working with the Division Headquarters staff, were able to ensure the refinery got what it



South East Iraq.

needed and guard against theft of its products, thus avoiding the public disturbances seen in some other provinces.

The people of Dhi Qar are predominately Shiah, there were some Sunni but I saw no open animosity, and they were proud of the resistance they had put up against Saddam in 1991 and throughout the 1990s. Many had helped the US Forces earlier in the year. Despite the bridges in An Nasiriyah being held with some will by Saddam's forces, bringing collateral damage along the river banks, the city was not much affected physically by the War. It was on Saddam's Black List though and apart from the large local barracks An Nasiriyah had received very little attention from the Ministries in Baghdad. Indeed, the whole Province was deliberately neglected by Saddam except for draining the marshes to deny many of the people their livelihood. Between An Nasiriyah and Chabaish there was a 50 kilometre long dam, constructed after 1991, to drain the area to the south of the Euphrates. Since the war the locals had redirected some of the flow and re-flooded to the south of Suq Ash Shuyukh, but this was less than a twentieth of the area that they wished to return to marsh. Travelling to Chabaish you spotted villages marked on the map as "abandoned" that had in fact been shelled by Saddam to force out the resistance. Since the war approximately ten thousand families had returned to the now marsh, along with buffalo, fish and other wildlife and some of these villages were slowly coming back to life. The Iraqis were making their own bricks to rebuild their houses and erecting fences from the versatile reed to corral their precious animals.

The Iraqi people had a high level of expectation and

believed intensely that the Coalition would begin major infrastructure builds immediately. They found it incredible when told Eastern Europe was still struggling after nearly fourteen years. Expectation management had to be taken on board quickly. The rule was to make no promises. Better to deliver first. The language was fraught with danger too, made worse by my lack of it. The phrase "might be able" was to be avoided for example. The word "might" is much shorter in Arabic and easily missed. Conscious that in certain circumstances we would be tempted to make decisions that could be turned around completely by future policy from Baghdad, we did much "thinking the issue through", resisting pressure from locals who wanted to see quick authoritative action. The better educated has surmised that insufficient planning had been done by the Coalition on the aftermath of war. The failure of the Office for Reconstruction and Humanitarian Assistance (ORHA) left a bitter taste. This was compounded by the suspicion the people had for any instruction from Baghdad. They accepted that leadership would be centred there but all Baghdad had done in the past was steal from the Province and beat down resistance brutally. The people of Dhi Qar saw themselves as always in opposition to Saddam, now co-operating with the

Coalition and far more deserving of our aid than those to the north. I noted that we had to be careful if we were not thought to be imposing another centralist regime with no element of regional autonomy¹. A federation would be too far but some delegation was certainly going to be necessary in my view. We were not helped by the fact that Dhi Qar was the only Province, by default not design, not to have a constituent sitting on the Interim Governing Council in Baghdad. This left the way open to rumour of a deliberate conspiracy. Arabs are quick to fall in with a conspiracy theory even in the best of times but this was one we had to counter seriously.

The main concerns of the people in August 2003 were water supply (there was a good deal of it but it was not drinkable), security, fuel, electricity supply and grain for flour. Much of the Province depended on road tankers delivering water and there were never enough. After drinking water the people always pointed to a lack of security. All the schools, colleges, the university, banks, municipal and public sector buildings had been looted badly. This was a shortsighted but understandable act of revenge against institutions seen as instruments of the old Regime. The Police were poorly trained, traditionally corrupt and had lost any professional pride they might have had in the past. There were always rumours of Former Regime Leadership plots, of Wahabist terrorists from the south and west, and disrupting influences from the east. Organized crime could be violent and tribes had differences to settle. Fuel theft turned to sheep and camel smuggling, although with higher prices in the north this was more likely to be free enterprise but all less the Bedouin seemed to think

¹ W G A Lawrie in his article "Iraq in WWII" touches on the Turks ruling the country as three separate provinces of Kurds, Sunnis and Shiahs.



An Nasiriyah Promenade.

Dhi Qar sheep should be eaten in Dhi Qar. After so many years of oppressive authority I think the really deep concern of the people was a lack of certainty about the future. However, this was expressed in more tangible terms by citing the need for better law and order. They were always frightened Baghdad would steal the electricity from the large Soviet constructed power station, thus putting an end to the street lighting that had been reactivated in order to deter crime, which it did. Once of the advantages of having no mobile telephone coverage and a satellite connection which hated the heat was the inability to receive unsavoury instructions from CPA in Baghdad. By the time word got through to surge power up country we had increased production at the station to a point at which we could afford to export to four other provinces, without cutting back local distribution. There were few beggars but there was much unemployment and poverty. The World Food Programme had a handle on grain imports for the time being so bread was not plentiful but available on a ration card, so long as you had one. The Islamic tax found its way from the mosques to prevent the dispossessed from starving but turning from a command to a market economy without a welfare safety net made for plenty of casualties. In concert with the most influential Iman we established a humanitarian fund to help the poorest, in the short term. At least we could try and clothe the children for the start of the school year in September.

Having touched above on the subjects most Iraqis wanted to talk about, as individuals, it is worth dwelling on their wider society. This is highly developed for the most part and far more complicated than we are used to in Western Europe. The Arab outlook is different, the values are more spiritual, religion influences the whole lifestyle, and manners are sophisticated and steeped in tradition. Personal interaction is more subtle and they prefer an indirect approach to problem solving. Arabs adore close conversation. The Shiah Imans are highly influential and the message from the mosque on a Friday held enormous sway over the people. Pictures of Ali, the fourth Caliph, and his sons Hussein and Hassan, adorn every taxi and bus. If you wanted to

get a message though then an Iman or Cleric was the way, and we built up a close relationship with them, hoping to have their understanding and support. In Dhi Qar I found them all (less one) to be well educated, highly rational and well meaning people, although some had more patience than others, and you were definitely measured by your results. Again, this social force is complex as the various Ayatollahs preach their own interpretations and the Imans tend to associate themselves with one line or another. The people follow suit. Many Iraqis will tell you that giving power to the Sheikhs would be a feudal and backward step. However, they can all tell you their tribe. The concept of the tribe is somewhat alien to a European and to make it even more difficult to fathom there would usually be a dispute as to who the real tribal leaders were and whether they had been on Saddam's pay roll or not. The Sheikhs held prominence in the rural areas particularly and ranged from being illiterate to highly educated, and from being a suspected gangster to a respected landowner. The British had used tribal chiefs to control the countryside earlier last century and there were several presentations of documents drawing up such agreements between their grandfathers and the British Commissioners² of the day, in the hope we would pay them again for their services. They certainly were keen to have a role that extended beyond settling disputes and upholding traditional values. A few of the political parties like Al Dawa and Supreme Council of Islamic Revolution in Iraq (SCIRI) had been around for some time but they were joined quickly by a multitude of smaller parties with wonderful names. Some were genuine; others were almost certainly fronts for criminal or subversive activity. Most were immature and focused on muscle rather than the design of a mandate. The more well established knew what they stood for and were cooperative. SCIRI seems a threatening title but the party was extremely well organized and we had constructive dealings with its highly intelligent leadership. These well founded parties were out to do more than concentrate on how the economic cake was to be distributed, as we are used to in Europe. Their intent to shape society roamed much wider. Importantly for us, the popular parties became keen to share information that had implica-



Children in An Nasiriyah.

² The Administrators mentioned by WGA Lawrie were still remembered.

tions for security, and with the better police leaders, we started to grow a constructive security forum, which would keep their armed "neighbourhood watch" elements within rather than without the fold. Finally, there was the impression made upon the people by outside influences. Some of the clerics and others had found sanctuary after 1991 in Iran, a few had fled to Europe, the US and other parts of the Middle East. They had now returned and brought their experiences with them. Many still travelled to and fro between the likes of London and An Nasiriyah. They acted as a useful counterbalance to those who had only dreamed about life outside Iraq and thought it to be perfection. The travellers knew full well how hard life can be in a foreign land, and indeed how Birmingham, Rotterdam and Baltimore still have crime and unemployment. But, they also knew Iraq could be better off. Lastly, there was trade across borders and no doubt the import of interests that were politically unhealthy or illegal.

We had to get the Province to an adequate state of affairs before the Iraqis judged we had outstayed their welcome. They were thankful for liberation, proud of themselves and keen for self destiny as soon as it had more than half a chance of being a success, and in their own way, according to whatever model they thought best not ours. The work required in Iraq beared little resemblance to the long term approach adopted in the Balkans. There was little clear guidance from Baghdad at this time, so common sense had to prevail. Our lack of human resources on the CPA side meant the Italians would run with law and order in full. We would lead on governance, the economy and infrastructure, but with the Italians helping greatly on essential services. Governance was to be the priority. The aim was to get the government departments within the Province on their feet, and establish a Provincial Council to sit above the An Nasiriyah and other town councils.

Unsurprisingly the Iraqi Ministries administration was in disarry. Whilst salaries had been paid, with Coalition assistance, there was no structural re-organization in hand at the provincial level. Essential services such as the hospitals and the police force were all too fragile and dependent on handouts from the CPA. The Fire Service was the notable exception, having two new engines delivered just prior to the War under the Oil for Food Programme, and had effectively carried out its duty throughout the War. In July the Iraqi Ministries were given budgets to see them through to the end of the calendar year. Since the end of the War there had been a number of quick impact projects and the CPA in Baghdad was looking far ahead to international donors sponsoring major infrastructure projects, many of which would take years to materialize. For now, the Iraqis had the means to do something themselves with the departmental budgets (amounting to several million US Dollars a month in the Province). The whole public sector needed training, mentoring and monitoring though. We had found ourselves at step two by need of the situation. I would argue that a period of administration under a "District Commissioner" would have provided the necessary time to enable proper training and subsequently have public administration at a higher standard sooner. However, it is a debate too large for the confines of this article (politically it would have been seen as imperialist and hard to sell internationally). The Iraqis had been brought up to deal with quantities and not qualities. For example they could tell you what was needed to produce 5 kilometres of road but could not tell you whom those 5 kilometres would best serve. Whilst being technically able they had always been told by Baghdad exactly how their skills were to be employed. Prioritization, value for money, desired effect were all concepts they had difficulty with. In Sapper terms they found design and construction straightforward but struggled with setting the requirement and allocating the resources. Saddam had controlled distribution totally and the departments only ever knew that they had so much quantity of input and they had to turn it into so much output at a specified place. This had severe drawbacks. Nobody built drains because drainpipes were not resourced and nobody queried it. The water department supplied water but not to where the housing department was building. Organization stovepipes were the order of the day in the old Regime and it was as if Saddam controlled that which lay between them. We decided that we had to tackle the departments in order and we would start by grouping the key departments into common areas - public works (planning, water, sewerage, and municipality utilities), health and social affairs, education (primary and secondary, technical colleges, vocational colleges, university), agriculture and irrigation. There were sixty four "departments" in all but the essential services were being looked at on a regional basis and many departments were State Owned Enterprises. The future of these so-called Enterprises would lie with decisions on economic design still to be made in Baghdad. We could not tackle everything at once with our humble team so we struggled with the four groupings above primarily, although uncertainty, disputes and petitions across the board still consumed too much time when the CPA Office was open as a "clinic" each morning. You could certainly sense some real monsters, the biggest being unemployment, had awakened but had still to turn nasty.

Whilst Baghdad decided the strategy on how all the ministries were going to be rationalized we would try and use what we had in a sensible way to have some sort of higher tactical impact. The public works grouping was the top priority and the planning department formed the core. After four weeks of meeting the department heads on a regular basis we managed to reach agreement that the main effort should be drains and that such emphasis would not impact long term on the other key service areas (their empires). The drains were open sewers and there was standing water posing a health risk, as well as cross contamina-



Open Drains.



Sculpture beside the Euphrates.

tion with a broken drinking water distribution system. Open drains and sewers catered for ninety percent of the brown water flow, or tried to. Saddam had not spent money in the south on what we in the West view a necessity – he wanted roads for his defence and security forces. If something was not done to get the open drains flowing or perhaps even covered then the winter rains would put all the urban populations at severe risk. The Health Department was in strong support because one third of all child health problems were attributed to water borne diseases.

The real battle came with the Treasury Department. The money had been mounting at the local bank whilst we mentored and tutored other departments to form a Provincial plan for their spending. Over 40 million US Dollars in a vault now reached the ceiling. Unfortunately the Treasury Director, an office due for reform but not yet achieved, adhered strictly to the individual line items of the Baghdad approved budget. This budget was based upon the one set prior to the War and thus reflected Saddam's priority for roads and more roads. Fortunately Baghdad indicated that some flexibility was appropriate after much petitioning from all the existing Governorate Co-ordinators (acting and appointed). This was reinforced by a "closed door session" with the Treasury Director during which he was convinced it would not be good for him if somebody started the rumour that the only thing between the Province and progress was he. This breakthrough came just in time before the bank vault burst and the department directors became disillusioned, believing that the same old centrist regime was alive and well in Baghdad, signalling no voice for the regions.

The release of money brought new pressures. Suppliers had to be found, resources that had not been stolen brought in, machines and materials guarded, and corruption kept to a level below greed we could absorb. The department directors were beginning to feel the pressure too. For example, the Director of Health had been beaten physically by the brother of an employee the Director had moved form one post to another so he could no longer be tempted to steal medical supplies. The Director of Education had to have an armed guard outside his office to deter violence from the hundreds of excess teachers Saddam had trained but never employed properly, and now demanded real jobs on the good wages CPA was backing.

Building the Provincial Council as a "behind the scenes

enabler" was a fascinating experience. There were not the means to hold a universal vote but the launch of the Provincial Council had to be seen to be representative, at least in presentation, by the people. And if we got the right people in the Council, it being the person not his office that seemed to matter in this part of the world, it would fly. To achieve this we started networking to identify suitable candidates for the Council - only possible with the help of an Arab speaking political advisor from Division Headquarters. Suitable candidates were sought amongst political parties, sheikhs, clerics, unions, and independents (including women). Open and closed consultations were carried out, often on a carpet and sometimes followed by superb hospitality. Lists were put forward by people we judged to be respected and influential. Comparisons were made, soundings taken, and advice sought and received. In fact, all angles and relationships were considered carefully, or so we thought at the time (there were, surprisingly, some Baathist twists in the tale revealed at the inaugural meeting). The aim was to make it as inclusive as possible. If a mover and shaker was not there, then somebody close to him had to be. When I left we had a short list. My successor improved on this and within a month the Council was convened and included one representative who had riddled Saddam's son Udai with bullets and brought him close to death, in an assassination attempt, before the War. He was but one of the many colourful characters encountered in Dhi Qar.

Whilst grappling with the birth of the Provincial Council the town councils were being revamped and given a new lease of life too. Those that had been born immediately after the war were full of opportunists, many of whose scruples were of low order. Somehow, the funds seized and goods confiscated from the executors of the Saddam Regime, which had been given to these novel councils, had not found their way to the benefit of the people. The cry went up for fair elections. We developed a crude electoral process based upon the ration card and some overarching principles, then formed election committees and observed their workings. These were far from perfect elections and the townsfolk recognized this but they were nevertheless passionate to have the opportunity to vote. The Independent spoke favourably, "like nothing I'd experienced since South Africa in 1994" wrote the newspaper's reporter. One Iraqi put it to me as "training for democracy". Shortly after my departure from the Province all the leading district town councils had changed form, less one which was chaired by the very best of sheikhs.

As I left An Nasiriyah my thoughts, crossing the Euphrates, made for this conclusion. Saddam had subjugated Dhi Qar through starvation, dehydration, under-investment and violence. The infrastructure could not cope with the pre War population never mind the post War increase. There were few lining up for the Provincial Council who had not been arrested, tortured, forced to flee or whose close relatives and friends had not been removed and killed. Not many had been given the opportunity to build up the skills required to run a government and a modern society. Nevertheless infant "democracy" was alive and kicking. But, unemployment and poverty is a serious problem, and the biggest risk to security; desperate people will take desperate measures. The Coalition had definitely not prepared itself properly for events after the War but it could and should win in Dhi Qar. The people are on side. If it does not, then it is unlikely to do so elsewhere.

The Korean Service Corps with the Royal Engineers, 1952–53

KING SUGAR CHARLIE

At the end of one of the last Supplementary courses at Chatham in the summer of 1952, the chap from AG 7 called in and asked for volunteers for Korea, then in the later stages of the war there. Several hands went up and some time later I found myself, with five other Sapper officers, on a flying boat taking off from Southampton Water. The rush was to get sufficient reinforcements into the theatre so that they might be "winterised" in time for the severe conditions which were normal in those latitudes. Rush or no rush it took us a gentle four days to get to Singapore, calling in at Bizerta, Limassol, Bahrein, Karachi and Goa, before propeller stops in the Philippines and Tokyo. Then it was on to the inevitable transit camp in the Commonwealth (Comwel) base at Kure in Japan. Soon after arrival, the Sapper reinforcements of all ranks were sent to the Commonwealth Divisional battle school at Hara Mura. The Directing Staff had some difficulty in concealing the tactical DS solutions, as the Japanese were on the look out for spent cartridges, valuable on the local economy, and knew the likely section and platoon positions. I felt that this battle school lacked the élan of that of the former equivalent run by Major Tasker Watkins VC of the Welch Regiment in North Wales, when he commanded the Infantry Wing of the RE OCTU at Newark in 1945. Not being required immediately in the Comwel Division, I decided to do some winterisation of my own by getting an attachment to the Comwel Port Squadron RE at Pusan. This was composed entirely by personnel from 17 Port Training Regiment at Marchwood, the first of many of such deployments. The squadron's role was to work the Comwel freight and trooping traffic within No 7 Transportation Military Port, US Transportation Corps. A call eventually came to join the Division.

1 Comwel Div had been formed up sometime in late 1951 to augment the original British Brigade which had such a hard time earlier when the war was very mobile. By the time that I arrived there it had fought for a strong position just north of the Imjin River, based on Hill 355, on the right, and a much weaker one on a low ridge called the Hook on the left. Divisional HQ and RHQ 28 Field Engineer Regiment were just south of the Imjin, over which there were two bridges, Pintail and Teal. One brigade was entirely Canadian, one was virtually all British and one mixed British, Australian and New Zealand.

My initial job was to be LO King Sugar Charlie at RHQ. This needs a little explanation. The division was now virtually static and heavily dug in, virtually a replica of World War 1 conditions. The field squadrons looked after the forward jeep tracks back to battalion HQs. Those from battalion HQ back to the Main Supply Routes (MSR) were the responsibility of an ad hoc organization consisting of a Korean Service Corps, (KSC) battalion of three companies, each with a British corporal who had a three ton vehicle, and the LO KSC who had a jeep and the one radio in the outfit. The companies only had hand tools and wheelbarrows. Later 15 cwt compressors were available when necessary. I cannot remember how many miles of roads we had to look after, with the airstrip as well for good measure. One of my jobs in had weather was to go round the lot at daybreak and report on the "going". Green was OK for all normal traffic, Amber was for operational and essential administrative vehicles and Red was for urgent tactical traffic only, ammo replenishment and so on. This was passed to Div HQ who put out a daily broadcast. Certainly in the autumn and during the big freeze there were relatively few problems, but this changed dramatically during the thaw.

I toured all the roads again before dusk, giving orders to the corporals for the next day's work and arranging for any regular support from the Field and Field Park Squadrons and the RASC transport unit as necessary, (always referred to as *Playtime* vehicles). The 3 ton Bedford tippers were not really up to the conditions, especially when the ground was hard. They tended to shake themselves to bits. Later I found that the American "deuce and a halfs" were much more rugged, but less manoeuvrable on the tight corners of some of the hill roads. Life in RHQ Mess was quite comfortable, each having one's own "hutchi" or hole in the ground, with a tented mess. Mail was excellent and airmail editions of *The Times* and *Telegraph* were only a few days out of date. It was quite a well ordered war, at least that side of the Imjin.

All this was to change with a vengeance in January 1953. The Comwel Div had been in the line for nearly a year with all three brigades up. It was pulled out into reserve several miles south, and was replaced by 2nd US Division, the "Second to None". They had been involved in heavy fighting on Pork Chop and other similar locations and were a little under strength compared to the Comwel Div, which had a high proportion of regular officers and NCOs. American junior officers, mostly, and many NCOs were found from the draft. All had a system of rotation based on points. Whilst the Comwel Division soldiers knew they were in the theatre for a year, and most of the Brits had to do a further two years on a so called family station, the Americans had to gain 36 rotation points. These were based on four for each month in a battalion area or forward, three per month in a forward rear area, two in places like Seoul and Pusan in Korea and one per month in Japan. This rotation could be as quick as nine months and as long as three years in Japan, providing the draft date did not come up first. The main topic of conversation at all levels was on rotation and some odd situations arose over this system. The main difference was that in the Comwel Division, infantry battalions stayed together for the year, whilst the Americans were all trickle posted, and tended to lose continuity in command.

Mention must be made of the South Koreans, whose country we were all trying to save. Their army had taken a tremendous battering, but were now recovering, being heavily under-pinned by the Americans. 1 COMWEL Div had a number of KATCOMS, who were South Korean soldiers posted in to make up the numbers. They tended to do the more humdrum jobs in the platoons, but were very useful and when necessary fought well. Then there were the King Sugar Charlies with which I was concerned. They were an unarmed para military organization something similar to the Working Groups in BAOR in Germany. They had a military rank structure, with a Lieutenant in charge of a company of about two hundred and a Captain in charge of a battalion, a youngish graduate from Seoul in my case.

2nd US Div had to leave its artillery behind to support a (Republic of Korea (ROK) Div, so the Commonwealth Artillery stayed behind to support the Americans. as did the LO KSC and his (my) little outfit, which was assigned to report to 2nd Combat Engineer Battalion, US Corps of Engineers. The change over took place on an icy freezing day and two of the three company chuck wagons went into ditches on the way up. I found one that was operational and enjoyed a super stew. One of the officers suddenly said "*Gee*, *its Sunday*" and I waited to see what this meant. He then made a dive to the chuck wagon and came back with a mess tin of ice cream. It tasted almost warm in that weather! Us Brits found ourselves in relatively comfortable tented messes, mine was in the Bachelor Officers Quarters (BOQ) and had the luxury of inflatable mattresses.

The CO was Lieutenant Colonel Tufts, a West Pointer, as was the Ops Officer, and both were first class soldiers and engineers. Others ranged in ability and several of the junior officers were from the draft and quite inexperienced. The Americans were not particularly interested in the early morning road reports, that is until their bigger "deuce and a halfs". larger than our 3 tonners, had a bad time. Always fast to learn from their own mistakes, they soon picked up the system. Before long they had us doing all sorts of jobs, the KSCs having to move camp. Life became difficult with virtually no communications, as I did not have a radio set now.

The Chinese, smelling a new Division in their area, became more active and caught two US infantry companies on change over on 355, and inflicted heavy casualties. The number of bodies being loaded into trucks at the company location was not a good sight. 2 Div's reaction was to replace the infantry companies by two engineer companies, who perhaps were not as surprised as their British ones would have been in similar circumstances.

One of my tasks was to obtain and supervise the KSC's pay. This was in their local currency, called Wan. There had been intense inflation since the war started and it took fourteen sandbags of Wan to pay out the three companies. The acquittance rolls were made out in Korean script and there was no way that I could check anything. The system was that I handed what I understood to be the right amount to the company commander, who supervised matters thereafter. If there was a surplus at the end, so well and good and he kept it with no questions asked. If there was too little and the tail end Charlies did not get paid; well that was just too bad, and 1 suppose he did something about it. I never had to account for the money to the Field Cashier from whence it came. He was only too glad to get rid of it.

Later on there was a revaluation of the currency and one Whan was worth ten Wan. This was much easier for me as, now, I only had to cart one and a half sand bags around.

During the depth of the winter there was not all that much to

be done as everything was rock hard and the roads stood up to the traffic. However the situation changed dramatically in the spring when the thaw arrived. Roads could start disappearing under even quite light traffic, almost whilst looking at them, and the airstrip was a constant pain. The main trouble on the hilly roads was that the culverts were the last to thaw, so the run-offs overflowed at each one: with drastic effects. The drill was to blow or dig out the whole culvert with a compressor hammer or small charge, remake it and then go on to the next one. Our British NCOs found that the KSCs were not strong enough in the arms to work the hammers, (they could and did carry immense loads on their Aframes on their backs), so they had to do it themselves.

Gradually a system was built up which I had to run. Excavators dug out loads of Imjin rock and stone, mostly the latter, and loaded this into trucks driven by an American transport company., which was brought up from Corps and taken to the collapsed road. The Americans found that if they shifted camp to the North of the Imjin, they could go into the three rotation points zone. They also wanted flak jackets as well, although they were out of range of enemy artillery. KSC gangs then repaired the road at any time of day and night as well, especially if there was a flap on. Ammunition convoys had to get through and some only just did so on half of a narrow road, whilst the other half was being repaired in virtual darkness, especially in the forward areas. All this was called "The Circus" and more or less just happened. with several nationalities being involved. Presumably the "Three" at the Combat Engineer Regimental HQ organized this with me running it, but it just seemed to grow. When the weather got a bit better a Kiwi Sapper used to go round virtually all the roads with a grader and did a tremendous job. I never knew who he was or where he came from - I just knew him as Kiwi and he was a really cheerful chap.

There was one difficult incident when a KSC saw a parachute flare fall and went to get it, crossing a wire in the process. Inevitably he was killed by a mine. I called for the minefield plan, which had been handed over to the US Engineer Regiment by the British. The American Engineer Intelligence captain (the "Two") came out and said something about the plan not being available. He said he would go in with a stretcher to get the Korean out. I did not have much of a chance of declining to help - Brit honour was at stake! Four of us went in very carefully, loaded on the Korean and came out just as carefully, hoping that the American had picked up the pattern of the mines correctly. Obviously he had, but the CO was cross at the risk that was taken by his valuable officer for a dead Korean, a feeling that he passed on to me also. That was not quite the end of the story as the KSC company commander asked for a jerrican of petrol to cremate the body, according to their custom. One of my corporals asked how much I had given them and when I told him he said "I expect they all had a good night out in Seoul in a jeep with that lot." I am not sure that he was joking.

During this time I saw the Americans at very close quarters. To me their profusion of non commissioned ranks and some of the discipline, including weapon handling, were novel, not that British weapon handling was above criticism. Yet in some instances their discipline was harsher than our own. If an officer did not show up for his pay, for whatever reason, he was red-lined and did not get any that time. The CO used to hold his Orders Group after evening chow and some of their reports sounded strange to me. There was an instance when a young Intelligence Officer reported along the lines of "...... the Red Batt had a heavy incursion and the counter attack was pinned down by enemy mortar fire......". At this point the Exec, a Major, coughed loudly and invited the Lieutenant to rephrase his words. "Oh sorry Sir, I should have said that "the Red Batt was *progressively detained* by enemy mortar fire!"

Also medals were presented at these O Groups, the actual medals, not the ribbon, as was the case with the British. On one occasion the Exec said "As some of you know, we have had an allocation of Commendation Medals (roughly equivalent to Mention in Despatches) from Division. Some of you people are just too damned lazy to get off your butts and write up your chaps for the commendations, so we will lose some if you do not get moving!" or words to that effect.

There were two amusing incidents in which Corporal Grainger, a very steady fellow, was involved with the Kiwi Gunners. The first was when we were still blowing up culverts to unblock the ice.

One was just outside a Kiwi battery location. Grainger had scrounged some American sticks of explosive, with which he was unfamiliar. "Shall we use this stuff"?" he asked. As there was nothing else handy I suggested that he went ahead as usual. The result was a much louder bang than expected (incidentally traffic control in such circumstances was extremely primitive) and a mast carrying a lot of telephone wires came down, followed soon afterwards by a very angry Kiwi gunner captain. We apologized, as his land lines to wherever were no more. However the Gunners were so well dug in and organized by this time that complete reliance on radio would not have been a problem, but we did not tell him that.

Soon afterwards the Kiwis had their revenge, almost. Grainger came to me saying that the Kiwis at the same location were stealing the KSC's wheelbarrows and the situation was now serious and was affecting their work. Somewhat sheepishly I went into the Kiwi camp to ask if please could we have our wheelbarrows back? A huge Maori BSM looked at us somewhat disdainfully and suggested that we came back in a couple of hour's time. This we did, and by the entrance were half a dozen wheelbarrows, all neatly lined up. We started to thank the BSM, but he just grinned and no more words seemed necessary.

I mentioned traffic control when we were using explosives on the roads and we had no trouble, as the drivers knew what we were doing and decided not to argue. However one of our roads was just below the flight path of the Divisional airstrip. We always looked to see if any aircraft looked as if it was taking off and delayed the blow accordingly. One of the approaches was just over the hill and it was not possible to see if a plane was landing. Helicopters were just coming into service with the Americans and a trial was organized to test their logistic capabilities, the first of its kind, operationally, I believe. This was when the Comwel Div was up and was chosen because it was located just over the natural obstacle of the Imjin. All supplies, except ammunition of course, were lifted from the Divisional airstrip by a fleet of some twenty-five choppers flown, by American pilots, over this particular road. This went on continuously, at least in daylight. We did not have any accidents in the event, but the possibility was always there.

One item I remember clearly just before this was an Easter sunrise service on the side of a hill and sunrise it was. Hundreds of GIs went to it before a normal working day and the Divisional padres held an Easter "Singspiration". There was a big queue for the Communion and I was amused by one of the padres breaking off to take a photograph whilst this was going on. I thought it was a most impressive service and could not imagine an equal response from our soldiers somehow.

Saluting senior officers on the road was expected and I must have saluted the British Commander Royal Artillery (CRA) – Brigadier Gregson dozens of times as he visited his guns.

Spring arrived and so did the Comwel Div back in its original location. The 2nd US Combat Engineer Regiment withdrew and the KSC units returned to the Sappers after a very busy and undersung winter.

So it was a somewhat jaded officer who rejoined all those fresh British faces, several of whom were to be involved in the Hook battle to come. But that story has been described already so well.

The Americans were very good to our small detachment. 2nd US Combat Engineer Battalion was a good place to be in that cold winter. It is just south of that area now, fifty years on.

Does BATUS make a Difference to Warfighting Operations?

MAJOR M BUDDEN MBE



Major Mark Budden was educated at Sheppey Comprehensive and thought he had reached his career ceiling as a soldier in the ranks! He has since served in a variety of roles but markedly at 38 Engr Regt and always with Close Support Engineering. He has seen service in Belize, Brunei, Cyprus, Kosovo, Macedonia, Canada and more recently as OC 25 Armd Engr Sqn during Op Telic 1 in Iraq where he was awarded the MBE. He is currently serving as the Chief of Staff at the Construction Engineer School.

INTRODUCTION

FIRSTLY, and for the record, I am not a PQE, nor is my Appraisal due soon. Normally scoffing at articles in the *Journal* promising myself that it would never be me, I had a surreal conversation with CRE (Rear) 3 UK Div, CO of 26 Engr Regt, Lt Col Cripwell where after discussions on Op *Telic* and BATUS, he suggested I write my thoughts and lessons learnt for the benefits of those about to enter the training year. I foolishly laughed and asked if that came under the remit of my squadron being OPCOM to him. I laughed again as he explained exactly what his interpretation of OPCOM was and yes, I laughed again as I sat down to write this article. So much laughter, so little time.

BACKGROUND

I SPENT nearly two years as a Close Support (CS) Sqn Second-in-Command, which included deployment on Op Bessemer to FYROM for Weapon Collection Operations with 9 Para Sqn. I then entered the training year with 25 Armoured Engineer Squadron (AES), which saw 25 AES supporting QLR Battle Group (BG), based in Saxon, on Salisbury Plain followed by disjointed exercises in support of 2 RTR BG (based in Challenger 2), mal-located in Germany, which then culminated in British Army Training Unit, Suffield, Canada (BATUS). After a small diversion, courtesy of Op Fresco (fireman's strike), 25 AES were formally warned for Op Telic 1, not in support of our usual regiment and brigade, but supporting 2 RTR BG in support of 7 Armoured Bde as part of 32 Engr Regt. Twenty-four hours before offensive operations in Iraq commenced, I took command of the squadron and commanded operations in support of 7 Armoured Bde, 3 Commando Bde and 16 Air Assault Bde, offering CS engineering to 2 RTR BG throughout. The aim of this article is to highlight the main lessons learnt from BATUS and see if they were of any benefit for warfighting operations in Iraq on Op Telic 1. For the sake of accuracy I have used, where BATUS is concerned, the BATUS Engineer Planning Guide 2002, the 25 AES Sub Unit Report from BATUS and my own observations in conjunction with the 25 AES Post Exercise Report. For Op Telic 1 I have used the Sqn War Diary, Sqn Post Op Report and my own observations.

THE TRAINING YEAR WITH A WORN OUT FLEET OF TANKS I DO not want to upset the previous TQMS of 25 AES or indeed the current one, but I do want to highlight the problem facing every CS or Armd Sqn in the Corps at present encumbered with Hvy "A" vehicles. When a squadron should be concentrating on training both individually and collectively it inevitably spends the majority of its time preparing a worn out fleet. In the case of 25 AES it had a really frustrating training year seeing the tanks supporting a Saxon based BG, which did not work, not having the finances to ship our own tanks off to Germany to support and exercise with our primary battle group and finally leaving our own fleet in barracks and taking over a worn out, end of season BATUS fleet which no-one looks after properly, (normally due to time constraints). Having completed BATUS using their fleet and returning to Ripon for Op Fresco, preparations on our own fleet could not really start in earnest until after we had been formally warned for Op Telic 1 and having been stood down from firefighting duties. This meant we were not able to properly focus on the tanks until after Christmas 02, some six weeks before shipping to the Gulf. I digress.

BATUS

Introduction. BATUS provides without doubt the best training that the British Army has to offer. It allows the opportunity to train from individual and pairs to divisional level in a testing environment that, on the whole, has not been pre-planned by either the squadron or regiment. Many of the frictions and realities of warfare are felt at all levels. The only note of caution I would wish to add against this is that BATUS does produce what is termed as BATUS "isms". Speak to any Ex MEDMAN veteran, mostly SNCOs who have completed several BATUS seasons, and what you find is that the training conducted by squadrons is not pure but CS engineering littered with the constraints of time, space, boundaries and the training restrictions that BATUS imposes. Not to be too despondent, it is worth remembering that BATUS is as close as it gets. At the end of BATUS the CS Engr Sqn should feel buoyant and ready to enter its high-readiness year.

Content. BATUS for an engineer squadron can be broken into two very distinct parts: firstly CS engineering training which consists of field firing, demolitions and Special to Arm Training (SPTA) where a multitude of mobility, counter-mobility and survivability skills are honed. And secondly, CS engineering but in an all arms environment in support of a battle group.

OBSERVATIONS FROM BATUS.

• Command. Formal Orders were rarely given. There was a tendency to rely on comprehensive warning orders. Formal orders must be given at every available opportunity, stage-managed where necessary and always clear and understood at the lowest level. Time saved by not giving orders is inevitably regretted when the mission does not go according to plan. Formal orders are also a great mechanism for ensuring your intent is understood and a useful method of assessing someone formally. Radio orders were not practised and inevitably led to a skill gap when compared to a well drilled armoured battle group. As engineers we have a tendency to be "sucked in" to the task site and invariably lose sight of the tactical picture foolishly thinking that our part in the "big picture" is vital, when we are just the mechanism to advance, etc. There was never enough time to allow engineer battle procedure and the OC must work doggedly to convince BG HQ of the need for this time. BATUS again proved that the most effective level of command within the engineers is at section level where it can respond quickly to orders, move independently of the squadron/battle group and is a discreet but potent size capable of creditable results. As to the force package of the squadron, I truly believe there is only one viable option which allows the correct level of close support to a battle group. This is the regrouping to Close Support troops. The effect of an armoured troop, field troop and support troop is superb for concentration of assets in a static environment, but to be truly effective, having three close support troops is the only way which allows a CS troop with each armoured squadron and provides a troop as a reserve to be moved where necessary to reinforce a fast moving battle.

• Information and Intelligence. Passage of information across the squadron both "up and down" was generally good and the command vehicles maintained an accurate battle picture via SITREPs from the Battle Group Engineer (BGE). Whenever there is sufficient pause on the squadron and battle group nets, the Sqn 2IC must give SITREPS up and down. This is something that most engineers shy away from but must happen as frequently as possible. This is equally as applicable to troops giving SITREPS to the squadron. Obstacle traces were not kept up to date and resulted in fractricide. The handover of engineer activity was one of the weakest areas within the squadron. This coupled with regrouping was a deadly combination. A joining pack, complete with Standard Operating Instructions (SOI) and Communication Electronic Instructions (CEI), should be made available from the squadron command vehicle where a comprehensive brief should be given to any element joining or departing the unit. Handover of engineer tasks was weak probably due to friction between squadrons but also due to time constraints. What must not happen is where a new unit takes over a task without the full battle picture and details from the current incumbent. Unbelievably, the current engineer callsign matrix is not standard across the regiment let alone the division and this caused difficulties when regrouping. Engineer squadron recce must be practised at every opportunity at battle group level close recce. When engineer regimental recce is "cut" from the battle group, it should be a seamless stepping up of squadron recce assets. This then puts more pressure on troop commanders but engineers must have representation at BG Close Recce. Situational awareness is not something engineers

are particularly good at but must strive to enforce at all levels. Whether on task, in the squadron harbour area or as part of a battle group move there was a tendency to let someone else worry about map reading, giving a SITREP, taking down a radio message, etc. Self-discipline is paramount to ensuring this. The use of "ZAP" lists in BATUS is a painful but necessary technique for ensuring the exact location of every single asset whether manned or not. This technique although laborious, was the only way that a Sqn 2IC could truly determine the locations of all squadron assets.

- **Firepower**. Obstacle crossing operations and the battle group role in this must be emphasized as early as possible and all elements of the battle group must be encouraged to understand this operation and offer the correct level of support to the squadron during it. The most effective use of firepower by the squadron in BATUS was the ability to call a Fire Mission quickly and accurately. This is not just infantry or cavalry domain but an all arms responsibility and is truly effective.
- Manoeuvre. Constrained by vehicle availability, the squadron tended to move assets on a central axis thus allowing a reserve to be quickly tasked. Ideally a CS Troop on each axis with the remainder on the central axis as the reserve is the better option. Tactical movement at all times is paramount and due care and consideration is important in negotiating ground with Hvy "A" vehicles. Squadron recce is particularly useful at identifying the ideal ground and routes. The need for queuing vehicles for specific tasks is important and must be adopted in conjunction with the ability to push assets as far forward as possible to react quickly but also to maintain the protection of these vital elements. The siting of Engineer RVs (ERVs) is vital and must be balanced between protection and ease of location, and distance and ease to the Recovery drills were effective but until a vehicle was actually in the Equipment Collection Point (ECP) it was not given adequate protection and was seen as a burden. Understandable in training. Frustration was probably the key element to battle against during BATUS with vehicle availability causing severe training restrictions. During the first day of Ex Pronghorn not a single Hvy "A" veh was fit which resulted in the exercise taking on major amendments. We tried industriously to man and sustain a squadron ambulance, but due to vehicle availability, this was offered up to provide a section vehicle. In hindsight this would have provided ideal training in the role of the Casualty Evacuation (CASEVAC) system and



Special to Arm Training.



Safety Staff keeping a watchful eye!

would have formed a workable medical plan.obstacle. As soon as a vehicle is no longer required at the obstacle crossing site it should move well clear preferably back to the ERV.

- **Protection.** The battle group must ensure the protection of critical engineer assets and must not see this as an unnecessary task. The squadron must enforce disciplined posture throughout the battlefield. Again, BATUS "isms" creep in and this is akin to "DS watching". The use of sentries, notably chemical sentries, is paramount and more training was required in the correct employment of NBC sentries. As soon as any number of vehicles go static then dismounts are required offering local protection immediately.
- Combat Service Support (CSS). The echelon commander operated an effective CSS system. The squadron echelon was co-located throughout the exercise period with HQ Sqn and this proved very effective with regard to the supply and control of stores. The fitter section needs to be fully integrated into the squadron to be truly effective. The liaison between battle group and engineer regiment is paramount.

Three other areas worthy of mention are:

Firstly, the environment is not something I wish to dwell on other than to note that if a soldier can endure intense heat followed quickly by freezing temperatures for sustained periods of time then I truly believe half the battle is won. Most of the sappers within the squadron at the time were straight from training where the longest exercise they had encountered was two nights out in the field compared to an average of 20 plus nights in BATUS.

Secondly, during pre-BATUS squadron training we walked/talked through many different scenarios in a relaxed and open forum that was to prove invaluable on arrival in Canada. In this environment people felt truly confident and able to discuss freely their ideas and concerns without the threat of derision – they started to trust each other.

Thirdly, the last point is that nothing I have mentioned above will count for anything without the right people pulling the strings. Strong command and confidence is required during BATUS and the squadron can only operate effectively when it has the right personalities involved. A squadron is personality driven and no matter what mishaps may befall, all can be put right if the people work for one another.

OP TELIC 1

So did the squadron take anything from its training year and

adopt it for warfighting operations in Iraq? Time was against us from the start and Op *Fresco* precluded the ability to train as much as we would have liked, spending more time on the vehicles and preparation in general. The key lessons learnt from Op *Telic 1* are as follows:

Command

Initially, having crossed the border into Iraq, we moved as a squadron complete and then before the end of day two had a squadron Area of Responsibility (AOR) and with so many engineer tasks my only option for ORBAT was as follows: I re-roled the squadron into section level groups with either a troop commander or squadron recce sgt leading them to their task site and then recce'ing another task. The remainder of the squadron colocated at a former Iraqi barracks and set up and ran an Enemy Prisoner of War (EPW) Holding Area with SHQ coordinating. This worked due to the static nature of the battle group at that time, but as soon as we were set to advance I changed the Sqn Order of Battle (ORBAT) into three close support troops. This partly reflected what the battle group was doing by having two squadron groups consisting of a Challenger 2 Sqn and a Warrior Coy combined. It seemed appropriate to have a CS Engr Tp supporting each squadron/company group allowing a squadron reserve. The reserve inevitably went in support of one or the other or was detached from the battle group, so worked extremely well. When we went static I re-roled the squadron back into armoured, field and support assets as the tasks dictated.

I gave comprehensive formal orders at every stage purely to allow the necessary information to reach the lowest level and believe this was achieved. Due to the comprehensive tasks identified during the first six days the result of formal orders meant I could let mission command kick in at the lowest proving once again that we have the very finest JNCOs in the army. Tasks were conducted by section commanders and were looked after/checked up on by troop management. I truly believe this was one of the success stories for the sqaudron. The section commanders could not have been happier left to their own devices with clear formal direction from their OC. The demolition tasks are too many to go into detail, suffice to say that I believe that BATUS' Ex Muledeer gave us the best grounding for the many and completely varied nature of demolition tasks we were confronted with. Lateral thinking kicked in and targets ranging from deep sea mines, a la WW2, to sea to air missiles



All in a day's work!

were destroyed using all manner of demolition techniques.

Although a forthright character who did not suffer fools gladly, my relationship with the BG CO was robust and effective. Without this robustness the squadron would have suffered dramatically and at times I believed whole heartedly that I had to present my argument or the squadron would suffer needlessly. This led to emotive discussions, usually one way, but proved to be the only course of action I considered viable. The CO trusted our ability and learnt to trust it completely when it mattered.

Information and Intelligence

Engineer recce was provided at times by the Engr Regt Recce Tp but for the most part was provided by the Sqn Recce elements. This generally fell to the recce sgts but at times fell also to troop commanders, section commanders and even troop staff-sergeants. This was a complete success and our relationship with the BG Close Recce Tp grew into a trusting and fruitful relationship.

Having been criticized for situational awareness during BATUS my worries were unfounded as every single man seemed to know the difference between exercise and operational danger. SITREPs were rarely asked for due to the eagerness of the callsigns on the ground wanting SHQ to know exactly where they were at all times in case anything happened. My worries about the communications were also unfounded because generally, even in the harsh desert conditions, the signallers earned their wages again and again ensuring we had communications throughout a very large AOR. An indisputable success was the issue of Personal Role Radio (PRR). This was invaluable and greatly enhanced our dismounted ability to communicate and was used extensively in the running of the Brigade EPW Holding Area and Brigade Vehicle Check Points (VCPs).

Location of all squadron assets was now second nature and was a necessary element to radio procedure. The Sqn 2IC was instrumental in this and kept an "around the clock" record of this basic, but vital skill, learnt the exhaustive way in BATUS.

Firepower

The extensive amount of ammunition, explosives, etc was warmly received. Due to the limited numbers of men who received training on the LAW in BATUS, we had to teach its use very quickly. We also had to learn the correct use of the new grenades, the issue of which averaged two per man.

Manoeuvre

Movement across the AO was conducted aggressively with stealth sacrificed for speed due to the lack of armour on all vehicles less the squadron commander's Warrior. Because no single vehicle movement was allowed, this vehicle was often seen escorting less protected vehicles around the AO.

Protection

As mentioned above the only really confident vehicle crew was the OC's due to up armouring. The attachment of CVR(T) Recce cars at the very front of the battle group was always going to be a nervous experience.

The battle group were still slow to protect engineer assets as comprehensively as I would have liked. That said whenever the opportunity arose to co-locate or move in their packet the squadron took advantage of this as often as it could.

Combat Service Support

A real success of Op Telic 1 was the complete integration of the



AVRE towing CRARRV in downtown Basra . . . honest!

REME fitter section within the squadron. Packets always moved with integral REME support. Each close support troop had as part of its ORBAT either an FV 434 or the CRARRV. This was a complete success.

The availability of the vehicles was simply outstanding and as an OC I could not have asked for a better vehicle state. Impossibly high availability reflected the hard and long graft involved by all members of the unit to keep the fleet on the road. That coupled with the conditions the men were working in makes this an all the more impressive feat.

Having learnt the lesson from BATUS and now with the very real possibility of actually needing it, I believed it was crucial not only to the effectiveness, but also the morale of the unit to have an ambulance crewed by someone experienced and someone the men trusted. I lost a much needed C3S Cpl but gained a vital player to ensure success.

SUMMARY

I THINK it fairly obvious from a comparison of lessons learnt and identified between BATUS and Op *Telic 1* that the squadron could not have put in such an impressive performance on Op *Telic 1* if it were not for the key lessons learnt from a very frustrating but much needed learning process in BATUS. Coupled with the fact that we were never off the boil throughout the training year, going straight into Op *Fresco* and then into *Op Telic 1* meant that squadron personnel never lost their operational mindset.

I think the three key ingredients are as follows:

Firstly, we didn't conduct a single obstacle crossing, lay a minefield or use a single bridging asset throughout Op *Telic 1*. What we did do was countless route recces, endless demolition denials, non-explosive denials, and numerous force protection tasks. Admittedly, not classic BATUS style missions but all had been practised in BATUS.

Secondly, the formal orders process is the key to getting your intent across and understood down to the lowest level. Orders must be encouraged at all levels as often as is possible.

Thirdly, Mission Command has to be encouraged from the very outset and command must be conducted at the lowest level. What made this easy for all the members of 25 AES was that having completed a training year together that culminated in BATUS, squadron personnel trusted each other, knew each other and in some fairly dark hours on Op *Telic 1*, pulled together.

A squadron is personality driven but it is only through experiences shared together that great things can be achieved.

Training Junior Royal Engineer Commanders to Operate in the Combined Arms Environment



MAJOR S G TENISON BSC(ENG) MSC

Major Tenison is the SO2 Engr in the Combined Arms Tactics Division (CATD), a post for which he was considered too old earlier this year! The unexpected departure of his predecessor, on promotion, posed a dilemma for RE MCM Div; accept a geriatric or gap the post. The former won by a zimmer frame. Having been in a different CATD post for 12 months, working mainly on the Battlegroup Battle Planning Course but also coming into contact with other command courses¹, he has views on the way that the Corps prepares commanders for working in the combined arms environment. This piece is intended to encourage debate. Major Tenison has another article on page 40.

INTRODUCTION

WORKING in a combined arms training environment one gains an impression of the standing of the Corps amongst other arms. In general, this might be described as *high* for Peace Support Operations and engineering tasks conducted in isolation, but less favourable for providing integrated support at the tactical level. To a certain extent this view is supported by the study into RE Close Support Engineering², which also identifies other noteworthy aspects of RE performance (both good and bad).

In general, we achieve a high standard of technical competence but perhaps either neglect or conduct inadequate training in the skills required to *think and communicate* in the combined arms environment. If there is any shortfall in the performance of the Corps in this respect some of the blame must lie with commanders, though whether this is the fault of individuals or the training provided for them may be open to discussion. This impression is considered below, in order to encourage a wider debate and, if necessary, identify areas requiring detailed attention.

COMMAND TRAINING

SOME of the comments in Observations from Training 2002 indicate a shortfall in individual competence, for example:

The BGE and BG staff must ensure that they keep each other informed throughout the planning process and subsequent execution of the plan.

Reporting of going (in particular road conditions) by engineer recce should be frequent and should not need prompting.

Furthermore, examination of RE command course programmes

suggests that we focus on teaching the special-to-arm skills, possibly with insufficient attention being paid to the art of thinking and communicating in a combined arms environment. This is partly because there is too little time, though it is not helped by difficulties associated with identifying what should be taught and how best this should be achieved. Effective communication is a two-way process and depends on the personality and experience of those involved. However, all too often training provided to RE commanders leaves them ill prepared in this respect.

The role of Engineers in an obstacle crossing operation, for example, may be well taught and understood within the Corps. However, do we teach our commanders to communicate with other arms in a clear, concise and intelligible manner, or do we allow them to appear as practitioners of a *black art*? The latter gives rise to misunderstanding and mistrust; once this perception has taken hold it is difficult to correct. Furthermore, do we place enough emphasis on situational awareness and a thorough understanding of the role of the rest of the company, squadron or battlegroup? A complete understanding of the commander's intent, as well as the role of others, is vital if Engineer commanders are to provide timely support to exploit opportunities.

However, communication works both ways; those being supported have a crucial role to play by ensuring that attached elements are properly briefed. For example, on the recent CATAC³ exercise, the AVLB commander attached to an infantry company admitted that he had not been briefed, did not know that was going on, nor what he was supposed to be doing. In fact, he had been attached to provide mobility support for a crucial counter attack across a water obstacle! Do we need to do more to prepare commanders to expect a thorough brief (orders) and to have the confidence to ask if one is not forthcoming?

COs will have attended the new ICSC (L)⁴, may be selected to attend the new ACSC⁵ and may choose to attend the Battlegroup Commanders Course, whilst OCs will attend ICSC(L), CATAC and BG BPC. All these courses include officers from the combat and combat support arms giving students the opportunity, during

¹ Both at Warminster and RSME.

² RETDT 32/2 dated Mar 03 (draft).

³ Combined Arms Tactics Course.

⁴ Intermediate Command and Staff Course (Land).

⁵ Advanced Command and Staff Course.

individual training, to gain experience at thinking and communicating in a mixed forum. Clearly there is already provision for the individual training of COs and OCs in the combined arms environment, though whether it is adequate is beyond the scope of this article; training at this level will not be considered further.

On the other hand, section and tank commanders, field sergeants and troop commanders have little or no opportunity for this type of individual training; any theory is taught in a closed RE forum. The first time that this is put into practice is likely to be during collective training; however commanders will be focusing on the technical aspects of support, rather than the techniques of effective communication with other arms. Some may manage tolerably well but this is probably achieved more as a result of personal attributes than the excellence of training. It should be noted that the RETCC⁶ does train on CATT⁷ and forms the RE troop on the CATAC final exercise; opportunities of this nature are probably not widespread enough.

Communication is not just the spoken word. The CS study reported the views of one BG Commander:

Sappers tend to forget the basic skills because they focus on their special to arm role; for example, they do not consider their own security when they de-bus.

This suggests a lack of professionalism and poor awareness of the bigger picture. Responsibility for correcting this fault lies with the RE commander. He must be aware of the "bigger picture", demand high standards of basic soldiering skills from subordinates and be aware of the message *communicated* to other arms by adopting an inappropriate tactical posture.

The strength of the individual training delivered on CATAC and BG BPC, amongst others, is founded on the mutual learning available within a mixed capbadge student body. Are there lessons that should be applied to the individual training of junior commanders? Whilst it is not easy to organise such training, either in units or the training organisation, there might be benefits in applying the concept more widely.

RE students are included in the SOTR⁸ for the Close and Formation Recce courses run by the Armd & ISTAR Div of LWS, though few attend; the Corps must make better use of this opportunity. This is in contrast to the enthusiastic participation on the All Arms Recce Cadre at Sennelager. In general, Engineer recce is seen as being proficient in its special to arm role, but less competent in the all arms skills. The arrival of Capt Neil Witcombe, in the new post of SO3 Engr recce in the Armd & ISTAR Div, should help to raise the profile of recce training within the Corps.

Sappers and JNCOs in recce troops are usually selected from amongst the most able in the regiment; as such they are likely to be the recce sergeants and troop staff sergeants of the future. Skills learnt in recce troops, attending all arms recce courses for example, can form a sound base for junior commanders to become adept at *thinking and communicating* in the combined arms environment. Currently the importance of recce appointments in the career development and subsequent posting of our soldiers is only recognized in Confidential Reports. This contrasts with the consideration given by posting and promotion boards to those that have been training NCOs. Perhaps there is scope for change?

Recent changes made to the training provided to BGEs might serve to illustrate the difference in concept and output between what is achieved on RE, compared with all arms, "command" courses. Squadron Ops Offrs used to attend the BGE course run by the Command Wing at Chatham, until superseded⁹ by the new Battlegroup Battle Planning Course (BG BPC) in April 2003¹⁰. All students attend BG BPC in-role, as pre-employment training; for example, the student BG 2IC runs the syndicate as he would the BG HQ, co-ordinating the output of the "BG HQ staff", including the BGE. The BGE "thinks engineering in a combined arms environment" and learns to communicate with officers of other arms. The original BGE course was conducted in a "quasi-combined arms environment" with RE students taking on roles within BG HQ; there is a big difference between what the BGE can learn in this situation compared with that achieved on BG BPC.

Whilst it may be difficult to generate the mixed capbadge learning environment achieved on BG BPC, particularly at lower levels, that does not mean that we should not make the effort if it offers value. For example a combat estimate (Seven Questions) exercise could be conducted, in-unit, around a map table, with support from the appropriate BG; this might involve the company commander, FOO, RE Tp Comd and any others specialists appropriate to the scenario. Similarly, familiarization or exchange training could be conducted at section level for short periods on local training areas. This is not a new idea but, even though training programmes are busy, perhaps there would be merit in re-examining the concept.

COMMENT

ON training and operations we must project an image of being professional soldiers providing a specialist skill, rather than specialists that once trained as soldiers. The former is integrated into the BG, has a sound awareness of the situation and understands how to apply engineering techniques within the context of the battlefield; the company commander will have confidence in his engineer. However, the latter might be more comfortable ignoring the battle whilst building the bridge; this does not generate trust and confidence amongst those being supported. More importantly, it is likely to endanger lives and jeopardise the mission. The correct image flows from the commander and is generated as a result of his confidence beside other arms commanders.

Is there an issue or is it simply the perspective of the SO2 Engr in the Land Warfare School? If there is, what can be done to better prepare RE Commanders? Whilst it might not be possible to replicate the learning environment of BG BPC on RE command courses, there may be opportunities for in-unit training periods, with support from BG officers and NCOs, for example.

This article is not intended to denigrate the performance of our junior commanders in the combined arms environment, rather it is designed to encourage debate about whether we prepare them adequately. The most able engineer commander is unlikely to be able to deliver coherent support unless the thinking and communicating skills match the special to arm competence. Any shortcomings in the way we train commanders must be addressed.

⁶ RE Troop Commanders' Course.

⁷ Combined Arms Tactical Trainer.

⁸ Statement of Training Requirement.

⁹ The requirement for some form of RE "Battle Captains" course, for second or third tour RE officers, is being considered.

 $^{^{10}}$ See the article by the same author in the *RE Journal*, July 2003.

Fort Chabai

LIEUTENANT COLONEL P R BURLEIGH BA



Sapper Peter Burleigh joined 1 Training Regiment in Malvern in 1950. In 1952 he was commissioned and following YO training served in 32 Assault Engineer Regiment before joining a JO Course. He then enjoyed three years as Plant Officer and 2IC in 410 Independent Plant Troop during the Malayan Emergency. Back in Aldershot he commanded a squadron as Boys Squadron expanded to become Junior Leaders Regiment in Dover where he became Training Adjutant, after which he went to BAOR as 2IC of 30 Field Squadron. Staff College followed, then the MOD as a GS02 in the Army Equipment Directorate before going to the RSME as an instructor in the Tactics School. In 1967 he commanded 4 Field Squadron in BAOR, returning to the MOD in 1969 as GSO1 in the Defence Secretariat. He retired in 1971 and went to work in the Home Office as a Principal in the Prisons, Race Relations and Police Departments, and then as an Assistant Secretary in the Fire and Immigration Departments. He retired from the Home Office in 1991 after three years as Secretary of The Gaming Board for Great Britain. Six years later he obtained a history degree from the Open University.

BACKGROUND

THE role of jungle forts, and their airstrips and the Pioneer aircraft for which they were designed, in the Malayan Emergency are set out on pages 187-190 of Volume X of The History of the Corps of Royal Engineers. Fort Chabai was the third such fort to be set up. Some of the difficulties faced by the Sappers tasked with constructing an airstrip for Pioneer aircraft at Chabai are described on pages 189 and 190. The fort was established by the SAS on a bend in the valley of the Sungei (River) Yai in the heart of the Kelantan jungle about 50 miles from the Thailand border. Land access was by road or rail to Kuala Lipis, then rail to Gua Musang about 50 miles to the north, followed by a four day trek on foot over hilly jungle trails.

Volume X does not mention that in 1954 the only wholly British manned, independent operational Sapper unit in Malaya was 410 Independent Plant Troop. Its OC was directly responsible to the Chief Engineer HQ Malaya Command. On 3 May 1954 OC 410 Independent Plant Troop RE, then at Sungei Besi, near Kuala Lumpur, was ordered by HQ Malaya Command to provide a detachment of one officer, one corporal and twelve other ranks to construct an airstrip at Fort Chabai. The party were to be flown in by helicopter from Gua Musang on 10 May. Visiting the fort the same day would be two Wing Commanders RAF who were to assess the feasibility of the site for use by Pioneer aircraft. The specification was 150 yards of good braking surface, an ideal width of 30 yards but minimum of 15 yards, at a maximum gradient of 30 degrees. The aerial approach out to 600 yards and 30 yards wide had to be cleared of all obstructions above an angle of 8.5 degrees from the start of the strip. HQ Malaya Command estimated that the task would take about two months. The detachment was to remain under command 410 Independent Plant Troop for administration but was to answer directly to the Chief Engineer, HQ Malaya Command on all engineer operational matters. In the fort the detachment were to be under the fort commander on all matters affecting the fort security.

THE SITE

THE detachment arrived at the Fort on 10 May. It transpired that the RAF officers had previously had doubts about the feasibility of the site for even the very short landing and take-off capabilities of a Pioneer aircraft, and these doubts were amply borne out by the natural gradient of the site, its position nestling well below the surrounding hills, and the likelihood of tricky air currents in such terrain. They felt that a trial approach flight by a Pioneer was necessary to assess the acceptability of the site. The OC RE Detachment was asked to mark out the position of the proposed strip and to clear the eastern approach to the specified level. The trial flight was arranged for 17 May. On 16 May the OC Detachment notified Malaya Command that the approach had been cleared and strip marked out. No flight appeared on 17 May and on 18 May Malaya Command ordered work on the strip to proceed pending a trial flight at a later date. So began a task which was to last well over a year.

The detachment arrived with the barest of personal kit and basic hand tools. All additional requirements were to be met by means of airdrop or, exceptionally, helicopter (S51 or S55) lift. The fort was manned by Malayan members of 7 Police Field Force based in Kota Bahru and commanded by a European police officer (ex Palestine Police and Grenadier Guards NCO). A separate police platoon used the fort as a base for patrolling the surrounding jungle. The RE Detachment were reliant on the police radio net, using morse code, via Kota Bahru, and visiting helicopters and police officers who walked in, for all communication with the outside world. On arrival the detachment was allocated a sector of the fort perimeter for defence purposes.

The fort was situated on reasonably level ground on the spur of a high hill which rose at a gradient of about 1 in 1. The airstrip was to be sited on the sloping ground which linked the fort and the hill to the north. To the east of the site the ground fell away at a gradient of about 1 in 2 to a stream, and to the west, beyond a deep re-entrant about 50 yards wide which crossed the site, lay another large spur of the main hill feature with a gradient of about 1 in 6 along the

centre line of the proposed strip. The aircraft approach had to be from the east owing to the surrounding topography.

The site was covered in natural secondary growth to a height of about five feet apart from a cleared area about 50 by 15 yards which had been levelled for use as a helicopter landing zone. Some deep trench latrines and waste food pits, the remains of a crashed S51 helicopter, and a double apron barbed wire fence which was part of the fort's perimeter defences also occupied the cleared area. There were about 2 inches of top soil above 5-6 feet of sandy clay with rock intrusions, and below this hard laterite which became rock-like as digging progressed.

WORK PLAN

THE work plan allowed for the following tasks:

1. Clearance of the aircraft approach funnel – This involved tree clearance over an area of about 50,000 square yards. The trees were tall, primary growth specimens averaging about 1.75 feet in diameter although much wider at the base. Where possible felling was undertaken by aborigine labour using biliongs. Their method was to construct scaffolding from natural materials to create a platform on which two of three of their number could attack the tree where it narrowed from the base. Unfortunately enough biliongs could not be obtained to complete the task on time and the aborigines refused to tackle some of the larger trees. Explosives were available on airdrop, however, and were used to complete the task, although the Sapper plant operators who made up the detachment needed re-training in their use. Although this task was finished by 16 May, following a visit by RAF representatives on 12 November a longer funnel was required and this involved further clearance in that month.

2. Perimeter drainage – Rainfall in the area was frequent and heavy. Constructing a strip on a side hill cut required a good drainage plan if the fill was not to be washed away. A 200 yard long, three feet deep, interceptor drain was dug by hand on the north side of the strip parallel to its boundary. Since the western 150 yards of this drain fell away to a ravine in its centre a culvert was necessary to carry the water away under the strip to the south. At its northern end this involved excavation, all by hand, to a depth of 11 feet. The drain was formed using natural timbers covered by split bamboo. The work began on 1 May and was completed on 20 July.

3. Clearance of vegetation, helicopter wreckage, latrines etc – A task carried out largely by aborigines. Help with stumps and bamboo roots was given by explosives and a Ferguson tractor after its arrival on 28 May. Total area cleared was about 6,000 yards. Clearance began on 18 May and was completed on 3 June. **4.** Collection and stockpiling top soil – The only site for stockpiling the top soil was within the strip alignment where the level would later have to be raised. Thus it became necessary to complete to final level (with top soil) some 80 per cent of the strip, and then stockpile the remaining 20 per cent of top soil on that surface before completing the fill at the original stockpile site. The initial collection of top soil began on 29 May, the day after the arrival and reassembly of a Ferguson tractor, and was completed on 28 June. Removal of top soil from this site began on 16 October and was completed 4 days later.

5. Revetting – Due to the depth of fill required, the steep fall

of the ground and the heavy rainfall it was necessary to construct a revetting wall averaging 5 feet in height along the width of the strip at the east end and for 100 yards along the south-eastern edge. Another two such walls were required at the ravine re-entrant on the south-west edge. Construction was of local timber laid horizontally and supported by braced heavy uprights at about 4 yard spacing. This proved to be a major task which involved cutting and hauling of timber from some distance by aborigines and erection of the wall by Sappers.

6. Cut and fill to formation level – This, the major task, involved the movement of some 60,000 cubic yards of soil and a cut of 16 feet at its deepest point. It included opening a borrow pit to the north-east of the strip to fill the south east corner. The single tractor was not only inadequate for the size and nature of the task but was also subject to frequent mechanical breakdown. To speed progress on this and the earlier top soil removal it became necessary for digging to be carried out by Sappers and aborigines using hand tools and wooden airdrop boxes pulled by aborigines using parachute harnesses for haulage. Later, wooden wheelbarrows were sent but they suffered a high casualty rate on airdrop. The aborigines proved incapable of handling them, so Sapper plant operators dug, filled and operated them! All work was often delayed by regular and heavy rainfall. Compaction in particular was difficult, reliance having to be placed, in the main, on a tractor towed small sheepsfoot roller. When it was dry enough, and the tractor was working, the fill area was rolled about twice weekly. A locally produced three-quarter ton concrete smooth roller towed by aborigines was used for the final surface compaction. The task began on 29 June and, with the help of a second Ferguson tractor from 16 October, was finished on 16 November, two weeks ahead of the work plan. On 12 November a visit from RE and RAF representatives at Malaya Command resulted in a revision of the specification to extend the strip by 50 yards at a steeper gradient to provide overrun space for landing aircraft. In January the specification was further amended to require this extension to be at a gradient of no more than 1 in 8 and the previous 50 yards to be at 1 in 12.

7. Airstrip drainage – This was provided by a crossfall which, together with sub-soil drains, took the water to an open drain running along the north side of the strip. The sub-soil drains were laid diagonally across the strip at 30 yard intervals and consisted of trenches about 18 inches deep and a foot wide filled with broken rock covered with 6 inches of soil to formation level. Some rock was found during the cut and fill stage but mainly it had to be found in the river bed. Large pieces had to be broken up with explosives and all had to be carried to the site by aborigines from the river bed 100 feet below.

8. Levelling and re-laying top soil – The earth leveller blades mounted on the tractors were used to level the surface of the strip. Over the time the top soil had been stockpiled, the effects of rainfall and hot sun made it either waterlogged or baked it hard. Moving and spreading it in either of these conditions with the tractor bucket and earth leveller blade was very difficult. In the end a great deal of this work had to be done by hand by Sappers and wheelbarrows and aborigines with airdrop boxes.

9. Planting and watering of grass until established – This seemingly straightforward task was complicated by a number



Aboriginees hard at work! Unable to operate a wheelbarrow their earthmoving was confined to airdrop boxes towed using parachute harness.

of factors. Grass was airdropped as plants, not seeds, and in such large quantities that the available work force could only plant about 60 per cent in the 48 hours before they died in the heat. Watering the young plants was a major problem. Unlike the months of heavy rainfall when the cut and fill task was in hand, at the time of grass planting no rain fell for about three weeks. The only source of water was the river about 100 feet below the strip level. The No 4 pumping set airdropped failed to work for about three weeks and then only produced a head of about 20 feet. Consequently, water had to be collected in jerrycans and carried up the 100 feet by manpower, Sapper and aborigine.

10. Marking and other preparations for aircraft use – A windsock was erected and strip markers cut from corrugated iron and painted. The final stage of the task was carried out by 11 Independent Field Squadron RE who succeeded the 410 Independent Plant Troop detachment on 17 March.

DIARY OF SIGNIFICANT EVENTS

1954		
10 May	Detachment airlifted to fort. First RAF reconnaissance.	
17 May	Pioneer trial flight postponed.	
21 May	Visit by Pioneer pilot who was unhappy with the	
	planned length of strip.	
28 May	First tractor airlifted into fort.	
4 June	OC detachment requests more earth-moving equipment.	
23 June	First visit by RE officer Malaya Command (SORE II).	
12 July	OC detachment sends urgent request for more plant.	
11 Aug	Visit by Pioneer pilot who requests move of touch-	
	down point by 10 yards.	
30 Aug	Second visit by SORE II Malaya Command.	
14 Oct	Second tractor arrives.	
12 Nov	Visit by SORE II, RAF Wing Commander and	
	Pioneer pilot. OC detachment ordered to extend the	
	strip by another 50 yards.	
2 Dec	Visit by Chief Engineer Malaya Command.	

1955

7 Jan	Operational command assumed by 50 Field	
	Engineer Regiment on arrival in Malaya.	
10 Jan	Visit by Lt Col Carver, CO 50 Field Engineer	
	Regiment.	
17 Jan	Gradient specification of western 100 yards of strip	
	eased and detachment told to aim to complete task	
	by 20 February.	
10 Mar	Advance party from 11 Independent Field Squadron	
	airlifted in to begin handover of task.	
17 Mar	Handover completed and 410 Independent Plant	
	Troop detachment airlifted to Gua Musang.	

MANNING AND WORK ROUTINE FOR THE RE DETACHMENT

ALTHOUGH 13 members of 410 Independent Plant Troop entered the fort on 10 May 1954 this number had reduced to 7 by 17 March 1955, 311 days later. Only the OC detachment remained throughout. For the majority of 1954 the strength remained at 13 with men being replaced to give them a break from the conditions, or to provide different tradesmen when necessary, or for medical reasons.

Although the majority of the detachment were plant operators the task was more suitable for field engineers. With the arrival of a tractor on 28 May 1954 two men were employed to operate it, increasing to four with the arrival of the second tractor on 14 October. The tractors worked a six and a half day week, each day consisting of two hour shifts for the operators from 0630hrs to 1900hrs with a 20 minute maintenance break at noon. Tractor breakdowns were, however, frequent and the absence of a repair facility or fitter resulted in great reliance on spare parts ordered by weekly airdrop to keep them operational.

Sappers other than tractor operators worked a six day week with a voluntary work parade on Sunday afternoons which was attended on average by about half the detachment, there being little else to occupy them. It was originally intended that the Sappers would be used for tasks of a more technical, field engineering nature and supervision of locally employed aborigines who would carry out the bulk of the work. Unfortunately too much faith had been put in the aborigines' ability in this respect, but more of this below. The result was that the supervising Sappers soon tired of trying to cajole the aborigines into working at the intensity required by the pressure to complete the task, and opted to work alongside them, including all digging and earth moving tasks using hand tools. Their output per man proved to be greatly superior to that of the aborigines.

A great deal was demanded of the Sappers throughout their stay in the fort. Working long hours in extreme heat, and often torrential rain, in unfamiliar surroundings was not new in the Malayan Emergency, and it was reasonable to expect them to do so under conditions where comforts and amenities were minimal. It was, however, exceptional to ask them to do so for months on end without relief. In spite of this their industry and conduct was of the highest order. Several became so committed to the task that they resisted when their turn came to be relieved.

ABORIGINE LABOUR

To appreciate the performance of aborigine labour it is important to understand their background. Before the arrival of the SAS at Fort Chabai in early 1954 the local aborigines had not

seen a European. While one or two headmen had met Malays on the jungle fringes, the only strangers the majority had encountered had been Chinese Communist Terrorists (CTs). They lived a very primitive existence. Their social unit was more a family than a tribe, living in a longhouse made of mainly bamboo and atap with a loose form of leadership being exercised by a headman. Their clothing, which was minimal, was made from what the jungle could provide. They lived off the land, growing what crops they could among the trees they felled to create a clearing in the jungle, and hunting the wildlife (pigs and monkeys) with their blowpipes. When their cropping land was exhausted, or they were disturbed by other humans, they left their settlement and moved to find another site. They suffered from a variety of diseases, some no doubt caught from the CTs. They were a happy-go-lucky but timid people and their reaction to any form of pressure was to run away. Generally, only some of headmen were able to understand the Malay language, none spoke English.

For years these people had accepted the need to help the CTs who had dominated the jungle. The arrival of the SAS and the establishment of the fort created a dilemma for them. Now it was the Malayan Police who wished to dominate their jungle and required their help in doing so. It was clear that those aborigines who came to the fort were in fear of the CTs and would not hesitate to pass on any information of value to the CTs. One of the tasks of the fort commander was to win them over to the government side. To this end they were offered minor work, often nominal, in the fort for which they were paid in cash and food. Money was not a part of their experience but it soon became clear to them that it could be used to barter for clothing, basic tools and trinkets. The Aborigine Department of the government set up a post in the fort from which they could buy these things, and it was hoped that the food would improve their diet and health.

On the arrival of the RE detachment the Fort Commander told the headmen of the nearby aborigine settlements that more work would be available. At first the prospect of additional cash



The size of the earth moving task was such that the arrival of a Ferguson tractor with its small bucket could not replace the basic methods already in use.

and food seemed attractive, particularly to the women and children, but the form of work proved not to be. The aborigines were unfamiliar with digging and earth moving tasks of the type and scale required, and needed considerable training in these skills. As they were used to working in the shade of the jungle canopy, work on the exposed airstrip was not to their liking. They also required constant close supervision. As they did not understand the Malay language, or English, any communication of importance had to be through a police officer and a headman, either or both of whom were not always available. The problem of aborigine employment was further complicated by his unreliability and apparent laziness. Any form of discipline or chiding for poor work resulted in subsequent absence.

Nevertheless, without aborigine effort the airstrip would have required far greater government resources. Those who wished to work presented themselves at the fort each day. Very often the women and children outnumbered the men. The numbers required, generally this was more than the number of applicants, were engaged by issuing them with numbered discs, and overseers (generally headmen) were appointed. They were then expected to work an 8 hour day. Their wages were in the form of food, 50 cents worth a day issued during a two hour break at midday, and cash, at the rate of \$2 Malayan a day on cessation of work and presentation of their discs. All cash was "signed" for with a thumb print. Such was the sensitivity of dealing with the aborigines that all their employment arrangements were the responsibility of the OC detachment. Cash was obtained from the Aborigine Department post in exchange for a receipt which was subsequently presented by that Department to HQ Malaya Command for payment. The food, on Aborigine Ration Scale "B", was ordered by airdrop along with British rations for the detachment.

ADMINISTRATION OF THE RE DETACHMENT Accommodation

The Sappers were housed in the former Fort Office, like all other huts in the fort, a split bamboo walled hut with an atap roof. The sleeping space consisted of two flat split bamboo benches on either side of a central passage. There were no mattresses, damaged parachutes providing all the bedding materials. There was just room for 12 bed spaces with personal kit stowed on the ground underneath. Lighting was by paraffin pressure lamps. The OC detachment lived in a similar, although more spacious hut used by the police officers. This gave him his own "bedroom". A new hut was constructed by the aborigines for use as a combination store, canteen, cookhouse and dining room. The detachment Corporal was accommodated in the store. By September the storeroom proved to be too small and all the tools and equipment were moved to a new hut constructed by the police originally for their own use. All the huts required periodic renewal of the bamboo and atap.

Cooking

Cooking was done over a standard army portable petrol pressure burner and open fires. An oven was improvized from a 44 gallon drum. The Sappers, none of whom had any training as cooks, served as such in rotation and there was considerable competition to out-do each other in variety and quality with sometimes excellent results. The rations were ordered in



View of the Fort and partially completed airstrip from the cleared aircraft approach to the north-east.

both fresh and "compo" form, supplied by the weekly airdrop, and a weekly menu was agreed by the OC. Occasionally short rations would result from parachutes missing the dropping zone and being lost in the jungle (with beneficial results for the aborigines it is suspected, although this was never proved). With the assistance of items ordered on repayment the lunch on Christmas Day was the highlight of the gastronomic year.

Water, Washing and Waste

All drinking water was drawn from the Sungei Kerchik, a small stream to the west of the fort and upstream from the aborigine settlements. It was then either filtered or boiled before consumption. All washing, both bodies and clothing, was done in the Sungie Yai below the fort, and downstream from the Kerchik. Sunday morning was considered "dhobie" day. A deep trench latrine with wooden floor and box seat was constructed and consumed about half a pint of DDT a day to keep flies away. All other waste was either burned or buried outside the fort perimeter.

Medical

The detachment used, and helped maintain the stock of, the police Medical Treatment Room. The OC detachment undertook all medical treatment using supplies ordered by airdrop. Medical advice was, in serious cases, sought by radio from 16 Field Ambulance in Kuala Lumpur, but otherwise reliance was placed on guidance provided by a basic first aid kit and general army health training. A sick parade was held by the OC at 1845hrs each day following the compulsory paludrine parade. Of the 20 plus Sappers who spent any time in the fort, all, with two exceptions, contracted a fever at some time, with temperatures of up to 105 degrees; all, however, responded to treatment, apart from two who were evacuated as casualties by helicopter. It transpired that both these had contracted leptis porosis. An army medical officer visited the fort once every two months on average. One of the OC's medical sidelines was the treatment by penicillin injection of aborigines suffering from yaws and venereal disease. One Sapper, after leaving the fort, died from cerebral malaria, probably contracted while in the fort.

Amenities

Amenities were few. No pay was issued to men while in the fort. The detachment Corporal ran a small canteen on a credit basis against pay accumulating at the unit HQ. Items available were principally beer plus a few sweets, toiletries and writing materials. A portable radio and some board games were available for general use. Mail came in by airdrop and was dispatched by visitors or helicopter crews or police officers walking out. Movement outside the fort area was forbidden except as armed patrols guided by the police and consequently was a rare event. Occasional games of football against the police (which the Sappers usually won) helped break the monotony of off duty hours and sustain morale. A short service was held on Remembrance Sunday with music from a record of the Whitehall service air dropped for use on the OC's portable gramophone brought in by a visitor. With the help of visitors and the unit HQ a Christmas card with a group photograph of the detachment was produced for members to send home.

POSTSCRIPT

THIS has been the story of the first 311 days' work on the airstrip at Fort Chabai for which 410 Independent Plant Troop were responsible. As has been mentioned earlier, 11 Independent Field Squadron then took over the task and finished the work. The story will not be complete without an account of that Squadron's experience.

In retrospect the site at Fort Chabai was unsuitable for rapid construction of a Pioneer aircraft airstrip. The flight approach was down a narrow river valley with jungle clad hills on either side towering above the flight path. The strip was out of sight of the pilot until the last few seconds before touchdown when he had to execute a sharp right-hand turn. The need for strip overrun required a longer strip than was originally specified. An aborted landing required a steep banking climb to avoid more hills, and all aircraft movement in the confined valleys had to cope with air pockets and currents which could severely test pilot and aircraft.

On the ground the equipment which could be made available for the original earth-moving task was inadequate if the task was to be completed in the planned time. The Ferguson tractor had neither the capacity nor the robustness needed. Subsequent extensions of the specification only made matters worse despite the delivery of a second tractor. Maintenance of mechanical equipment over a prolonged period without immediate access to appropriate tradesmen, spare parts and basic repair facilities severely reduced its output.

These operational problems led to a need for the detachment, the majority of whom were plant operators, to rely a good deal on the most basic engineering skills and the limited resources available locally. The administrative facilities were equally basic, and amenities virtually non-existent. Coping with such conditions over short periods would be expected, even in a tropical climate, but for the detachment to do so, and yet maintain their output, health and morale while confined to the fort area over a period of ten months, was exceptional, and in the best traditions of the Corps. This was reconized by the award of a mention in Despatches to three members of the detachment.

150 Years of the Red Cross

MAJOR T F CROXALL BSC



Major Terry Croxall was commissioned into the Corps in 1942. On D-Day he led an AVRE Assault Team of 81 Assault Squadron landing at H-Hour on the beach at La Riviere. Wounded at Tilly-sur-Seules 13 days later, he was evacuated to the UK but rejoined 6 Assault Regt before Christmas 1944. He returned to the UK in 1948 for a Degree course at the RMCS, followed by the Technical Staff course. He attended the Atomic Bomb Trials at Maralinga in 1956 then took command of 74 Field Park Squadron (attached to the Gurkha Engineers) in Malaya, finally retiring in 1963 when The Clark Equipment Company of Michigan, USA invited him to become Inventory Controller at their European HQ in Brussels. A ten-year appointment as Managing Director of The Crosby Valve & Engineering Company followed and he finally retired in 1982. He then set up the Ormonde Advisory Service, advising "Gap Year" students of the opportunities available to them. In the year 2000 he joined the British Red Cross and became the "Medical Loan" organizer at their Petworth Centre.

INTRODUCTION

WHEN I joined The Petworth Centre in the year 2000 as Centre Organizer for "Medical Loan", I knew nothing of the origins of the Red Cross Movement. I quickly discovered as I toured our area of North-West Sussex, that many of our members and almost all of our "clients" knew nothing either. This was particularly surprising since "Red Cross" is the second most wellknown name in the world (the first is "Coca-Cola!).

I began a programme of research as to how the Red Cross came to be formed and this article is the result. I have submitted it to the Institution because it crossed my mind that many members of the Corps may have helped the Red Cross in the field, or indeed been helped by them when injured or wounded, and be as unaware as I was of the movement's origins.

THE PROPOSAL

THE father of the Red Cross – Jean Henri Dunant – was born in Geneva on 8 May 1828. Until he was nearly 30 years of age, his main interest was in a group of organizations operating under the name "The Young Men's Christian Union", being the European counterpart of the newly formed Young Men's Christian Association (YMCA) in England. Largely as a result of Dunant's persistence, the first World Conference of the YMCA was held in Paris in 1855.

In 1849, Dunant was appointed to a banking house in Geneva. He progressed well but soon decided to go into business for himself. While travelling in Italy in June 1859,he chanced to arrive at Castiglione della Pieve on the same day that the Battle of Solferino was being fought nearby. The town filled with casualties and the army medical services proving inadequate made Dunant try to relive the pain and suffering of the wounded. This experience completely changed his life. His business activities became secondary as he sought to find a way in which suffering could be ameliorated in future wars. On his return to Switzerland he wrote and published "A Memory of Solferino" in 1862 and in a very short period, it was being read and discussed throughout Europe. He proposed that societies of trained volunteers be organized in all countries for the purpose of helping to care for wounded combatants in time of war and this was enthusiastically received. Whilst his proposals were both idealistic and practical, political and social changes were in progress. The indifference to human suffering had long since been replaced by a genuine concern for the well being of mankind. His proposal was patriotic as well as humane and soon translated into reality.

THE ORGANIZATION BEGINS

IN Geneva in 1863, a charitable organization appointed a temporary "Committee of Five" to take whatever steps were necessary to implement the ideas of Dunant. The Chairman was a Swiss Army general, two others were doctors, the fourth was a prominent lawyer and the fifth was Dunant who acted as secretary. Before their first meeting ended, they decided then and there to constitute themselves as a "Permanent International Committee". The first Red Cross Conference opened in Geneva in 1863, prior to which Dunant had toured the capitals of Europe seeking support and extending invitations. Thirty-six delegates from fourteen European states attended.

The second conference, held in 1864, resulted in drafting a convention or treaty that when ratified and acceded to by all governments would bind all parties to accord humane treatment to all sick and wounded of armies in time of war and to protect all those who attend and care for them.

This treaty is now known in the Red Cross movement as the First Geneva Convention.

THE EMBLEM AND NAME

IDENTIFICATION for non-combatants was essential and a white armband emblazoned with a red cross was decided upon. By reversing the colours of the Swiss flag, the delegates not only created one of the best known symbols in the world today, but also honoured the Swiss, upon whose soil the conference was held. This symbol quickly became asso-



Henri Dunant at the age of 37, from a wood engraving by Dombrowski.

ciated with the relief of wounded combatants and hence the Red Cross Society was born.

The Red Cross symbol has no religious significance, but some Moslem countries, to avoid misunderstanding amongst their people, were authorized to use a Red Crescent symbol. The Red Cross, the Red Crescent and the Red Lion and Sun in Iran, zealously guard their symbols and make every effort to restrict their use to their Armed Forces and their National Societies.

THE RED CROSS TODAY

THE International Committee of the Red Cross is the direct descendant of the original "Committee of Five" formed in 1863. Members of the Committee are still all citizens of Switzerland and may number as many as twenty-five. Its mission is however worldwide, non-political, non-ideological and non-religious in character. Its mandate is to operate with strict neutrality and without discrimination.

The Committee acts as a neutral intermediary between opposing parties to aid victims in time of conflict. It also helps with communications and relief supplies of all kinds which may be channelled to prisoners of war and other victims, civilian or military. Under an agreement with governments the Red Cross has directed the International Tracing Service, whereby missing persons are located and reunited with family members, or

issuing certificates of death, of captivity or forced residence.

Today some 170 National Red Cross/Crescent Societies across the world, all composed generally speaking, of volunteer members and voluntarily supported, continue to recruit and train medical and paramedical personnel to serve in time of war as auxiliaries to the military medical services. The resources of the Red Cross can be swiftly mobilized and effectively used to relieve suffering not associated with war, but with disaster relief such as fires, floods, earthquakes and landslides.

THE GENEVA CONVENTIONS

THESE have been updated in 1899, 1929 and again in 1949 after two world wars incorporating the protection of civilians detained in an enemy country and to give them certain rights. Governments bind themselves voluntarily to adhere to an international humanitarian code setting forth high moral standards expected of civilized peoples who tragically find themselves at war.

THE BRITISH RED CROSS

FORMED in 1908, the British Red Cross Society has expanded and developed over the years and has operated in numerous theatres of war and widened its scope. In response to emergencies, with its highly trained personnel supports local authorities in this crucial area. Specially trained volunteers known as "Fire Victim Support" help people in crisis after a fire or flood. First Aid cover for public events is an important requirement, the training for which is carefully carried out.

A recent need is for people returning home after a period in hospital. Volunteers are on hand to support them and help in rehabilitation. A vital and much used service is "Medical Equipment Loan", mainly wheelchairs for short term loan which is supported in certain areas by a home delivery service. Many items are on sale from a comprehensive "ABILTY" catalogue, and charity shops sell good quality items from donated stock. Skin camouflage after an operation, together with therapeutic care is another, lesser known role.

Message and Tracing is a service for finding loved ones and delivering messages, particularly from prisoners of war and refugees. Nowadays, asylum seekers play an ever increasing part in the work of the Red Cross where again, specialist training is necessary. Talks and demonstrations are regularly given across the country to encourage volunteers to serve the community

The Red Cross has come a long way in 150 years!

Carpe Diem Part II (First Part Published in August 2003) COLONEL W G A LAWRIE MA CENG FICE FIL FRSA

2. JORDAN – 1958

IN 1956 I was quietly commanding a training regiment in Aldershot and thinking about my next posting. My three children had been born and brought up in India without a day's illness. Now after going through measles, chicken pox, mumps and hooping cough they were just getting settled in English schools and I was reluctant to go abroad again. A voice on the phone told me I had been appointed Military Attache in Kabul. It couldn't have been worse. In those days there were no direct flights to Kabul and children could only have one free passage in a 3-year tour. When I protested I was told there was no one else who spoke Persian and Pushtu, so I reluctantly went through a course about Afghanistan and Russian badges of rank. Within 10 days of sailing to Karachi I had a long letter from the current MA saying that I must bring out 400 yards of thick curtain material as a protection against the cold and three years supply of various commodities such as toilet paper.

This was the last straw and I went straight up to see the Director of Military Intelligence. He was very understanding and simply asked if I spoke Arabic. In that case I could be MA in Amman instead and must leave next week without my wife as the situation was a bit tense. Since Glubb Pasha had been sacked there was no direct link between the War Office and Amman.

So off I went with a huge baggage allowance but no indoctrination. I was not made welcome in the Embassy. They had never had a Military Attache and didn't need one now. I was given a desk in a passage and put up in a Hotel. There was no one to type my letters. Almost at once the abortive Suez operation was launched. The Embassy expected a hostile reaction and I was told to prepare the building against an attack. I bought some tea bags and tins of digestive biscuits and locked the front door. Sure enough a mob turned up shouting obscenities in Arabic, but they passed us by and burnt down the French Embassy.

The ordinary people in Amman were very pro-British. When I walked down the street in mufti I was given a smart salute by passing soldiers, which I never got in Aldershot even when I was in uniform.

Major General Ali Abu Nuwar, who commanded the Jordan-Arab Army had been sent away to Paris by Glubb who didn't approve of his behaviour towards British wives. Now he was back and enjoyed the close friendship of King Hussein. He invited me to dinner and then took me on to the roof of his house. He pointed out a man in the garden with a wireless set who was waiting for his instructions. He said he could not stand by while Britain and Israel were carrying out a brutal attack on his friends in Egypt. He had 4000 desperate Palestinians armed with knives who had been thrown out of their homes by Israeli aggressors, who were waiting on the frontier where Israel was at its narrowest. He was about to give the signal for them to walk across Israel to the sea killing every man, woman and child they met. Nothing could stop them since the Israeli army was fully engaged on the Red Sea. I was horrified at this plan and argued with him for two hours before he agreed to drop it. But I cannot really look on this as a successful attempt to change world history.

Almost at once the Egyptian Military Attache in Amman was blown to bits after opening a letter bomb. I was accused of having sent it, and this led to three attempts to assassinate me in return. The nastiest was when the brakes of my car were tampered with, causing it to plunge over a cliff, but luckily I managed to scramble out. For the rest of my time in Amman my house was guarded day and night by an army picquet, for which I was very grateful.

After a General Election a communist government came to power headed by Suleiman Nabulsi. He demanded an interview with our Ambassador accompanied by Ali Abu Nuwar. He wished to break off relations with Britain and demanded the withdrawal of the British Training Teams and a British unit stationed at Aqaba, and this took place. We had also maintained a large arms dump in Jordan consisting of weapons, ammunition and vehicles which had been removed from the Canal Zone.

When the RAOC personnel came to check these, the hangars where they were kept were completely empty The Jordanians had quietly stolen ten million pounds worth of stores. However we had the last laugh since the guns had had their breech blocks removed, and boxes labelled "ammunition" were full of rocks.

Ali Abu Nuwar now showed his true colours. He was an out and out Communist planning to murder the king and proclaim himself President of Jordan. He was found out when a loyal Bedouin soldier shot his emissary. Instead of executing him King Hussein allowed him to escape to Egypt with his family in his staff car. Years later I asked King Hussein about his leniency and he told me that Nuwar belonged to a powerful tribe and he could not afford to alienate them.



Autumn 1957. My car was sabotaged but I got out in time.



Kings Hussein and Feisal in Amman in 1958 with Prince Mohammed and Brigadier Saidq Sheraa

Throughout my three years in Jordan there seemed to be one crisis after another and I never took one day's leave. The great excitement in 1958 was a proposal to unite Jordan and Iraq as a single kingdom with its capital alternating between Amman and Baghdad. King Feisal of Iraq, who was first cousin to Hussein, came to Amman with a large party. An Iraqi brigade camped near Amman ready to take part in joint manoeuvres. Our Ambassador gave a dinner party for both kings and their entourages. After dinner people strolled about in the garden under a purple sky speckled with bright stars. He asked me to go and see if two old men sitting together were happy. When I got up to them I realized that they were the Prime Ministers of Jordan and Iraq who had been the companions of Lawrence of Arabia in 1917. They told me to draw up a chair, poured scorn on my Arabic and reminisced about the old days in fluent French. I wish I could have recorded the conversation. After a few days the Iraqi delegation went home accompanied by many Jordanian dignitaries.

I was woken at 5 am by a phone call from Army HQ. "You must come round at once. Something terrible has happened". I learnt that a mad brigadier called Abdul Qassim had gunned down the entire Royal family of Iraq as well as many prominent Jordanians. King Hussein was in grave danger, having broken off relations with Britain and with an Iraqi brigade close to Amman. Our Ambassador was on leave and I was involved in discussions all day. I told King Hussein that he must swallow his pride and ask Britain for help. That evening I sent a telegram to London explaining the situation. I heard later that Harold Macmillan called a cabinet meeting at 10 pm after which the Parachute Brigade was ordered to fly to Amman from Cyprus.

After dark the Iraqi Military Attache, who was a staunch Royalist, took me to a parking place opposite the house of the communist ex-Prime Minister, Suleiman Nabulsi and we watched a meeting taking place on the first floor in front of a brightly lit window with no curtains. While we sat there three jeep loads of Iraqi officers in uniform turned up to join in the discussions. It was obvious that they were planning to march into Amman next morning and murder King Hussein with nothing to stop them.

I was up all night arranging barracks and transport for the Parachute Brigade and ordering 3000 extra loaves of bread to be baked. The situation in Amman was electric with bombs going off all over the place. All the lights failed and our servants made excuses and went home to see to their families. My wife was alone in the house in the dark with a small baby, and rang up to ask what she should do. I told her to go round looking for a hidden bomb in a cupboard or under the stairs and if it was ticking to throw it out of the window.

I got home in the early morning and heard the BBC announce that there was no truth in the story that British troops were flying to Amman. While the broadcast was on I looked out of the window and saw a long line of aircraft coming in to land. So I dashed up to the airport to brief the Brigadier on the situation. Everything settled down at once and the Iraqi brigade was sent packing.

This time I had got it right. I am certain that my telegram to London had really been in time to change history.

Later King Hussein asked me to recommend a British officer who might be ready to train his Engineer boys. I thought at once of Major Tony Gardiner, a gallant officer who had won the MC and bar in Italy. He was keen to come out to Jordan, but what about his only daughter. I told him she was bound to find something to do in Jordan and sure enough she married King Hussein. They were very happy but it was doubtful if their son would be acceptable on the throne of Jordan. They separated amicably, and King Hussein contracted two more marriages with Arab ladies. However on his death-bed he selected his half-British son as his heir, and he was duly crowned as Abdullah II. I hope he may have a stabilizing influence on the Middle East.



King Hussein marries Miss Gardiner in Amman in 1961.

Lichfield? Where's That?

CAPTAIN S P ASH



Captain Simon Ash was educated at Welbeck College and Edinburgh University before the Army caught up with him and sent him to Sandhurst in 1999. He served as a troop commander with 21 Field Squadron (EOD) and enjoyed blowing things up in Belize, Bosnia and Kenya before being posted to the Army Training Regiment at Lichfield. He is now Operations Officer for 69 Gurkha Field Squadron

LICHFIELD

MENTIONING Lichfield usually precedes a flow of questions. Where is Lichfield? What do you do there? When did the Royal Engineers move there from Bassingbourne? Who would want to go to work there? And finally, whether or not my career is over as a result of being posted there! As these questions are still being asked on a regular basis I thought I would try and answer them to a wider audience.

WHERE IS LICHFIELD?

LICHFIELD is just North of Birmingham (sharp intake of breath as inquirer pictures spaghetti junction and imagines Brummy accent). Whittington Barracks, the home of ATR (Army Training Regiment) Lichfield, is just off the A51 between Lichfield and Tamworth.

Lichfield is an historical place; a cathedral city and home of Samual Johnson and Darwin Senior, but the history does not end there. Whittington Barracks is one of the oldest barracks still in use and celebrated its 125th anniversary in July 2003. In 1881 the glorious training began as the Barracks became the depot for the 1st/2nd North Staffords, 1st/2nd South Staffords and a Militia Battalion. The Boer War effort was bolstered by troops trained at Whittington and after the War in 1902 the 1st Royal Welsh Fusiliers became the resident unit, shortly followed by the 2nd North Staffords. Thus started a rotation of units through the Barracks until the advent of the Great War. The two great pillar memorials at the Barracks were built after WW1 commemorating the North and South Staffordshire Regiments. The monoliths remained but the Staffords were replaced by two regiments of the 2nd Anti-Aircraft Brigade who became resident in 1936 and they were in turn replaced by 10th Replacement Depot of the US Army in 1942. After the Second World War the barracks returned to being a depot for the North and South Staffords, but then with National Service the camp became a Cookery Instructional Centre between 1947 and 1952. The North and South Staffords were amalgamated into

the Staffordshire Regiment in 1959. The Barracks then became home to the Mercian Brigade and then to the Prince of Wales' Division. Whittington Barracks became the ATR Lichfield on 1 January 1993 and took recruits from the Army Medical Services, the Parachute Regiment and the Infantry of the Prince of Wales' Division. Since 2002 the Barracks has become the home of initial training for the Royal Engineers and the Royal Signals. Initial training for Territorial Soldiers of all cap badges is also now taking place at Lichfield. This history just goes to show that the great Army merry-go-round started many years ago! Fortunately there are no plans for another move quite yet.

WHEN DID WE MOVE FROM BASSINGBOURNE

28 TRAINING Squadron RE moved from Bassingbourne in the spring of 2002. It was actually more of a gradual process rather than a direct relocation of a whole squadron. Capt Phil Leigh led the way and had the challenge of preparing the ground for the inflow of Sappers. Engineers of all ranks were steadily posted in, including Major Phil Jackson who has been key to forging the Sapper identity at Lichfield. There are still many non-Corps personnel within the Squadron. Many posts are filled by Infantry from the Prince of Wales' Division who are fully integrated and enrich the Squadron by providing a different perspective as well as expertise on the infantry skills that are so central to Phase One. 28 Training Squadron RE is not the full extent of the Sappers in the Regiment though. C Squadron is shared, both in staff and student, between the Engineers and the Signals, who in turn have their own Squadron, 1 Training Squadron. An increasing number of Regimental posts are being taken up by the Corps too and a Royal Engineer CO is due in 2004. Over a year on now the Sappers are very much established at the ATR with the transition from Bassingbourne complete, but the presence continues to grow as things become more settled and more central positions are taken up by members of the Corps.

ROYAL ENGINEERS JOURNAL

Ser & Trg Obj Number	Subject in CMS(R)	Standard	No of Periods in the CMS(R) Syllabus
(a)	(b)	(c)	(d)
1	Skill At Arms	Demonstrate the methods for maintaining, safe handling, and firing 5.56mm rifle	114
2	Fieldcraft	Carry out basic fieldcraft in the field	82
3	Physical Training	Demonstrate the appropriate levels of aerobic fitness, muscular endurance, strength and agility to withstand the demands of Career Employment Group	87
4	First Aid	Apply the aims of first aid and undertake preparation for battlefield first aid	19
5	NBC	Carry out individual protection measures necessary to survive an NBC attack	27
6	Map Reading	Use a lightweight compass to navigate to a given destination	23
7	Drill	Demonstrate basic foot drill with and without weapons	43
8	Health & Hygiene	Demonstrate the application of health and hygiene measures to minimize the risk of a recruit becoming a casualty from poor health, preventable disease and injury.	10
9	Adventure Training	Take part in recognized adventurous training	27
10	Military Education	Demonstrate basic military knowledge about the army	12
11	Character Training	Display and understanding of religious faith and military virtues	7
12	Finance	Explain the army system of pay related matters as they affect the recruit	3
13	Security	Demonstrate security awareness	2
14	Military Law	Describe military law and its application to service life	1
15	Welfare	Identify what help is available within the Army from welfare services	1
TOTAL			539

Table 1

WHAT HAPPENS THERE?

"PHASE One Training" is the simple answer. "Ah yes" the inquirer says with a knowing nod and a wise look. For we all know what goes on in Phase One Training. We have all done it in some guise or another (back in the days when it was far tougher!) The core subjects are still much the same with shooting, fieldcraft and physical training still dominating the syllabus. But there have been changes, both in the recruit and the training and it is good to keep abreast of these changes for, like it or not, the people passing out of the ATR are the Corps of tomorrow (shudder). Now this can be quite a scary prospect when you see some of them, but we gain some assurance from the fact that the same was thought of us when we walked through the door at the beginning of our careers!

The aim of Phase One Training is to prepare soldiers for further training and for operations. This training is just a basic foundation, but, you will be glad to hear, there are still standards that have to be achieved in order to pass-out. The result is not so much a finished product as a work in progress, but one with the basis of knowledge to build upon and the skills and drills to look after themselves in their new environment.

The course that runs at Lichfield is the CMS(R) (Common Military Syllabus (Recruits)), the standard basic training for soldiers joining the Army who are between sixteen years nine months old and twenty-seven years old. Immediately it has to be pointed out that it is not the only basic training course, longer courses run at Harrogate and Bassingbourne for Apprentices and younger recruits, and the other Arms and Services also have training regiments that have some small differences in the training. The syllabus and standards are coordinated by ATRA (Army Training and Recruiting Agency) and the training staff working in any of these establishments all go through ITGIS (Initial Training Group Instructor School). The ITGIS course is designed to achieve a consensus of policy and standards across the various Initial Training Regiments and as well as covering instruction in some detail, equal opportunities and welfare are discussed in depth. Some people feel affronted that they are expected to cover what appears to be old ground. Section Commanders for example have already attended many of the specific instruction courses they need. The general feeling at the beginning of an ITGIS Course is often that "we are all experienced soldiers anyway and know our subject matter and how to instruct". The content of the Course does revise some things, but it highlights the need for such revision. The content is useful as not only is the Course an attempt to provide specific training for a job (a radical thought), rather than just assuming competence, it also highlights skill-fade and the need to be current on policy issues. Practical sessions and discussions help to broach hot topics and also broaden perspectives and approaches to welfare as well as training. These discussions often provoke more 'harrumphing' and outbursts than a bunch of backbenchers at Prime Minister's Questions. A discussion of training policy on discipline quickly reveals what we perceive to be appropriate and acceptable!

The CMS(R) course runs over twelve weeks but there are only effectively eleven weeks of training as the first few days are taken up with administration and the last few with the

LICHFIELD? WHERE'S THAT?

pass-out parade and more admin. There is enough content to fill more like thirteen weeks so it is an intense period for staff as well as students. For Staff, although there is some stability at a Training Regiment and most jobs are protected from deployment, hours are long and weekends few. There is time to take block leave between courses and the teams need this recovery and preparation time between intakes.

The exact content of the course is continually evaluated and adjusted. There are fifteen subjects or training objectives in the CMS(R). The objectives are further broken down into subobjectives which are covered in the various lessons and exercises (see Table 1). This does not account for the extra tuition, guidance and character development that are an integral part of training and are inherent in the everyday interaction with the soldiers. It can be argued that this development is the most important part of the training as much of the detail of the lessons will be forgotten but the character should remain. Most of the suggestions for change to the program come from the training team who not only see the detail of the instruction but also should hopefully have an up to date view of how the training should relate to life in the field Army. Short tour lengths for Officers and NCOs are useful to maintain recent experience and also keep people fresh in a demanding job.

One of the more modern developments in content is that the recruits also gain an NVQ on the course, as it has been identified how useful it is for military courses to have civilian recognition. Although, as with the training, it is at a very basic level, it is also very important as, even for Royal Engineer recruits, it may be their first formal qualification. Steps are also in place to identify those with the need for academic development, although there is not the time to conduct much development during Phase One.

WHO WOULD WANT TO WORK THERE?

SOME of the best hopefully! This would be the cry from any unit but as a training establishment there are some considera-



Battlefield Tour - Recruit gets to grip with the latest equipment.



Tasks of the unexpected - installation of an M2 rig.

tions that should attract good personnel. As Phase One is usually the recruits' first experience of the Army, it is a challenging and formative time for them all. What passes out is a reflection of what they have been exposed to. Who forgets their immediate superior from when they were training, and how much did your opinion of them forge your opinion of others in that position and the Army as a whole? As mentioned earlier, the soldiers are bound to forget much of what they are taught and yet they need to retain the values that underpin the Army and the Corps. The battlefield tour and adventure training go some way to developing character and expounding upon the values, but it is the example of the staff that truly instill the core values of the Army that the soldiers may forget in name (as others may have done!); selfless commitment, courage, integrity, discipline, loyalty and respect for others come from the experience of an environment rather than the theory taught in a lesson. Skills and drills evolve with time, and so does the Army. Some change is necessary, but change is made much easier if there are foundational values that remain steadfast, despite the developments on the surface. It takes good junior commanders to have the correct influence, and good SNCOs and Officers to manage the change.

The section commanders especially should be some of the best, as they are the ones who have the most influence on the recruits. The best for an ATR does not mean that they have to be the best combat engineers or tradesman. They do need to be good commanders and good instructors as they are directly responsible for their section both in and out of lessons. They are around in one way or another from when the recruit wakes up to when he goes to bed and therefore have the greatest input on the new soldier, something that most section commanders find very satisfying even if they are a little sceptical about training at first. These section commanders know that the soldiers pass out with their "stamp" (nothing too literal here!) and are keen to uphold their own reputation, and thus the Corps, when it comes to standards.

As the management team has just one SNCO the troop sergeant can take on greater responsibility than they may have in a normal troop. They are much more likely to have to step up and command the troop and so there is a great opportunity to develop the communication skills as well as the administration skills of the "Seniors". Their administration is vital to the smooth running of the course as if things are not there in the right place at the right time it can have a large knock-on effect to the busy training schedule. There is still plenty of chance to instruct and take on other projects, be they sport, social or other so it is a good all round challenge for a capable sergeant. And so what about officers at the ATR...

nd so what about officers at the ATK...

WHETHER OR NOT MY CAREER IS OVER!

Well not yet at least! People were generally amazed when I announced that I had requested to go to an ATR as my first choice, but were not generally amazed that I got the position (who else would put it down as a preference?!). Equally when they first hear that I have been to an ATR their first look is usually one of pity as they ask how I was unlucky enough to end up there. When I say I asked to go, the response can be the same as the quiet tolerance they would give to a lunatic as they slowly back away, smiling and nodding and trying not to excite the situation. If people are so surprised that they remain glued to the spot I usually finish them off by telling them I enjoyed it.

I had little idea of the pros and cons of an ATR when I was in Bosnia and my OC faxed me from the UK to say I needed to chose my posting preferences. I had read that Officer Careers Policy expected that we would do a training tour at some stage. I concluded that I enjoyed training and that I was loathed to give up command just yet, even after a fantastic two-year tour as a Troop Commander in 21 Field Squadron (EOD). If I was going to do a training job I wanted to have a "hands on role" so being part of a training team it made sense. I also enjoy basic soldiering so Phase One seemed the obvious choice. After a little investigation I found that there was also the added incentive of a varied programme that involved battlefield tours and adventurous training. I had to look up where Lichfield was (no surprise here) but my decision soon became clear.

In retrospect, the stability of the tour, despite the time commitments, was very useful. I got married and I was able to organise an expedition to ski the Haute Route, as well as completing some other little projects and being involved with a couple of sports teams. These things can be hard to achieve in the busy operational environment of the moment.

Beyond personal reasons it is important to have capable officers in training establishments as not only are they setting the standard by which soldiers will judge other officers but if the Corps are sending the best Corporals then their careers need to be effectively managed. Although the training programme has only limited flexibility, there is the need to continually assess the overall content of the course and the product it produces. The troop commander is in the perfect place to address this. On top of this he is essential for the welfare of the troop. The transition for soldiers from civilian life, often straight from school, or even from another country, throws up all sorts of challenges and it is here again that the officer can make a real difference. Management of careers, training and welfare are the essence of the troop commander's job. I cannot say that it was with these high aspirations that I applied (or was selected) to go to Lichfield but I can



Haute Route - Just another day at the office!

confirm the need for people to fulfil this role!

I had a very enjoyable tour at Lichfield. I was part of an excellent Squadron and surrounded by excellent people. A year was just the right length of time for me as the challenge remained fresh for this time but by the end I was keen to return to the Field Army. A year kept me current so I had relevance while I was there and not too long a break for me to be "out of the picture" when I returned to a Field Unit. For a Commanding Officer it would be easier for continuity if he had troop commanders for longer, but from both a personal view and considering the breadth of experience that one has to attain at this stage in one's career, a year was ideal.

CONCLUSION

ATR LICHFIELD is the new home of 28 Training Squadron and of the Corps' Phase One Training. Hopefully, people will continue to become more aware of what actually happens there and fully support it.

Many things in training are still very similar but there are continual changes in both the training and the recruit. Everyone would all like to see better soldiers coming out of the ATRs but there will always be an element of soldiers needing experience to be experienced soldiers. A soldier on completion of basic training has received just that; basic training. When looking at the recruit and the time it soon becomes clear that even if the course was much longer there would still need to be an element of "discipleship" on joining a unit before becoming a truly competent soldier.

The Corps needs good people in training establishments if they want good soldiers, and a positive environment if they want positive results. Recruitment does not provide the luxury of thousands of applicants that can be whittled down. The correct standards need to be maintained and potential needs to be developed, hence the idea of "train in not select out". The junior commanders play a key role in this, and it takes someone with the right mix of patience, determination and good example to get the right results.

The view that Training Regiments are a holding area for officers about to leave the Army or folk that have been side-lined is an unhealthy one and not true (thank goodness!). There are plenty of opportunities and experiences to be gained from a training post and a posting in ATRA need not upset the flow of a career. The management of careers, training and welfare would also suffer if there were not competent officers in post.

Reminiscences of the War against Japan



J R HARRIS, AA DIP(H) FRIBA HKIA FRSA

John R Harris was born on 5 June 1919 at Walton on Thames. In 1929 the family moved to Chobham.

In 1928 John Harris contracted tuberculosis, a much more serious disease then, than it is now, and this disrupted his schooling. In 1933, after he recovered, he was sent to Harrow some forty years after Winston Churchill had left. He had always wanted to become an architect, while at Harrow he won all four Yates Thompson art prizes.

On his return from the Far East having taken five and a half years to circumnavigate the world, he completed his architectural studies, graduating in 1948 with an honours diploma at the Architectural Association, London. It had taken him ten years to qualify! He subsequently built up a flourishing international architectural practice, operating in the Middle East, Europe, UK, Nigeria, Malaysia, China and Hong Kong.

I AM now aged 84. Yet I still have occasional nightmares on the horrors of the Second World War in the Far East.

In 1938 Chamberlain came back from Munich waving a piece of paper declaring "peace in our time". By then it was clear to most, like myself, that there was going to be a war. I volunteered to join the Territorial Army which was growing fast. At that time I had been a student of architecture at London University for over a year. (I had always wanted to be an architect). As I had architectural training and knew about construction I became a Royal Engineer as this seemed most appropriate.

We started to take part in exercises on the grass in the Duke of York's Headquarters in London once a week. In August 1939 we went to the TA camp on the cliffs above Dover and were taught how to dig trenches and make redoubts, using a handbook which was published in 1916; it described how a trench was to be constructed.

Three weeks later Chamberlain declared war on Germany. It was a Sunday. Air raid sirens wailed around us. Three days later we were mobilized.

I was billeted in 21 Cadogan Square which was my father's house. He had tried to let it but couldn't because of the coming war. The floors were filthy and we had no furniture. The food came at regular intervals in a dirty demolition lorry from a top class Knightsbridge restaurant. It was excellent.

I was made an N.C.O. in October 1939 before being sent on a six month intensive commissioning course in Aldershot. On its conclusion, we all expected to be posted to France, but three went to Singapore instead while I and two others were sent to Hong Kong. We all knew that the war was getting close in France; on one occasion when at Chobham I even heard gunfire from across the Channel.

No shipping for Hong Kong was available for me for four months and so I joined my father in the Home Guard. We patrolled the countryside, watching for enemy spies and searching cars and buses in the blackout.

In early July I was ordered to board The Viceroy of India.

The ship was the largest P&O liner and carried 800 civilians and 40 officers. I was aged 21.

All my friends and relations said how lucky I was to be sent away from the European war to a part of the world which was still basking in peacetime. They pointed out that I would be going to the most luxurious place in the Empire, with a wonderful climate, no rationing and no lighting restrictions.

We arrived off Gibraltar around 1st August, just after Italy declared war, and witnessed the first Italian air raid on Gibraltar. Next day we saw the Italians had not done any damage. To avoid going through the Mediterranean, we had to go round the Cape. We refuelled at Cape Verde Island. Halfway to Cape Town we went to the rescue of the Ceramic. This 4-masted P&O ship had been hit around midnight, in the middle of the South Atlantic, by another merchant ship. Neither ship would have been showing any lights. The Ceramic was carrying women and children bound for Australia. During the day we stayed by her side. The ship's Captain said that this was risky as there was a German raider in the area. We took the women and children on board.

On the voyage to Cape Town I got pneumonia. Lord Merthyr, a Gunner in charge of us, was advised by the doctor that I should have to be put off the ship at Cape Town. From there I would probably have eventually joined the Desert Army. However, I recovered and carried on to Mombassa, Bombay, Colombo, Penang, Singapore and Hong Kong, where I arrived in September 1940. It was a beautiful day; my first impression was that the Colony was sparkling like a jewel.

Dickie Arundell, Micky Holliday and I, the three Sapper officers, were met by Major Dan Grosse. He took us to the Hong Kong Club where we were to live for about three months. Arundell and Holliday joined a Field Troop. We were paraded in front of Colonel Clifford, the Chief Engineer. We learnt that Nos 22 and 40 Field Companies were in Hong Long. including RE Services, we numbered 32 officers and 497 Sappers.

My Field Company's responsibilities initially included man-

ROYAL ENGINEERS JOURNAL



Map of Hong Kong Island.

aging the searchlights at Lei Mun and maintaining the pillboxes there. This was in the north-east corner of Hong Kong – the precise spot upon which the Japanese were to launch their invasion of the Island. But I was next posted to Garrison Engineer West. A lot of work was contracted to the Chinese.

One of my jobs was to maintain the water supply to the Gunners on Mount Davis on the extreme west of the Island. The supply required a special high-pressure pump which had to come from the UK. Two pumps were lost in transit; finally, after a year, one got through. I knew about construction work, being an architect, and was able to do what was expected of me.

The Japanese did not attack Hong Kong until 7th December 1941, so I had nearly 18 months of peacetime soldiering there. I saw the end of the China Coast era. The Colony was efficiently run and it was a fairly luxurious life. I kept my golf clubs in the Fanling Club House on the border. The club had a number of Japanese members. Were they spies? A drive to the golf course involved passing barbed-wire concentration points, concrete pill-boxes and ammunition dumps nestling under camouflage nets among the hills.

The Japanese had been fighting the Chinese since 1933. By October 1939 they were only 35 miles north-east of Hong Kong. The Chiefs of Staff in Whitehall concluded that the denial of the port at Hong Kong to the Japanese for as long as possible was the sole military reason for Hong Kong's defence. Anxiety about Japan was growing. Tens of thousands of poor Chinese were pouring into Hong Kong. Whole families lived and slept under the street colonnades. They were very courteous.

Early in 1941 the previous Governor had ordered all British women and children to leave the Colony, except for those women who were on defence work. Too many wangled exemption, while some deliberately flouted the orders. Children were kept in the Colony and suffered the miseries of war. Over 2,000 British civilians were eventually interned by the Japanese, including the children.

By December 1941 the European war was going very badly. The Germans were on the outskirts of Moscow. Of more concern to us, due to the collapse of France 18 months earlier, virtually no British warship could be spared for Far Eastern waters. They were needed in the Mediterranean instead to replace the French fleet which had been sunk or taken over by the Germans.

The Japanese, supremely confident of victory, had decided on war to capture the allies' abundant quantities of oil, rubber, tin, bauxite and other raw materials. The Dutch and British were incapable of prolonged resistance in the Far East, they knew.

On 1st December, a week before the Japanese attacked, the Governor mobilized the whole Garrison. After this, Dickie Arundell, Willy Clarkson and I drove to Fanling for the last



Young internees at Stanley camp. Although under-nourished and showing signs of their ordeal under the Japanese, the children were remarkably fit, due to the unfortunate location of the camp.

time. We saw beyond a bay 40 Japanese transport ships. Churchill was signalled accordingly. We all knew war against Japan was imminent. All our forces were at battle stations; the approaches to the harbour had been mined. In short, Hong Kong was as ready for war as it would ever be.

At 8 a.m. on 7th December, the Japanese air force destroyed our few totally obsolete aircraft, before any declaration of war. News reached us of the attack on Pearl Harbour.

I watched from our veranda the Japanese trying unsuccessfully to bomb our one remaining destroyer. The other ships had left immediately for Singapore. The Japanese had total supremacy at sea and in the air. On land they were not numerically greatly superior but they had a wealth of battle experience

from years of fighting in China; they were highly trained; had more than enough artillery and were quite fanatical. Fifth columnists helped them.

And so what happened to me? I was sent in due course to Mount Davis to service the 9-inch guns which had been installed in 1905. They could only point out to sea, rather than at the New Territories down which the Japanese were advancing at speed. I was sent out on night patrols above Aberdeen in the south-west and manned trenches although I was quite untrained in infantry work.

Other Sappers were fighting in similar roles. For example, at 4 a.m. on 19th December, the GOC, Major General C M Maltby, arranged with the Chief Engineer for the dispatch of an RE party for an infantry fighting role – to reinforce the vital ground at the Wong Nei Chong Gap crossroads area. Seventy British and Chinese were sent there to support the Winnipeg Grenadiers. The Gap was one of the Japanese key objectives.

We were told a large Chinese army was coming to help us but we did not believe the story. With the sinking off Singapore of repulse and Prince of Wales we knew that we were on our own.

Close to my position was St Teresa's Convent with some Italian nuns. About midday on Christmas Day came the news of the surrender. At that moment a small door in the Convent wall opened and a nun in white beckoned us to come in. We had roast chicken and apple pie, our last good meal for four years. (Twenty years later I went back to try and thank the nuns. I could find no trace of them)

Over 2,000 allies were killed, died of wounds or were missing and 1,332 were seriously wounded in Hong Kong – a very high proportion considering there were only 12,000 defenders. (Many more were to die in

captivity.) "There was," as the Official History has it, "no lack of good and gallant leadership." Churchill had signalled the Governor on 21 December 1941: "The enemy should be compelled to expend the utmost life and equipment ... Every day that you are able to maintain your resistance you and your men can win the lasting honour which we are sure will be your due." He later wrote in his history of the war: "These orders were obeyed in spirit and to the letter ... The Colony had fought a good fight. They had indeed won the lasting honour."

I must here pay tribute to Major General Maltby, the GOC, who behaved in impossibly difficult circumstances throughout the war with tremendous courage and will. I said earlier that there were 12,000 defenders, but the two newly arrived



The Wong Nei Chong Gap, the vital ground, where Sappers fought the Japanese in December 1941.

Canadian battalions, included in this number, would be the first to agree that they were quite untrained for such a campaign. Their transport never arrived in Hong Kong.

We were initially sent to a POW camp at Shamshuipo near Kowloon. We had to carry what we could on the two-mile walk there. Some brought in books, which was just as well for no other books were to reach us for almost four years.

In April 1942 the Japanese moved 500 officers into another POW camp at Argyle Street. About 100 soldiers accompanied us as "batmen". They were scarcely employed as such but we felt, correctly as it proved, that we could save their lives should conditions be better for us there.

What were my impressions of my captivity? Chess became popular; Willy Clarkson, a Sapper, made chess sets using wood cut from the roof timbers of the hut. I had a small box of watercolour paints and did some sketches on scraps of Red Cross paper. These I still have.

Most of the Korean guards were brutal but there were a few Christian Formosan ones who treated us better.

Disaster struck in September 1942. The two camps were paraded and a Japanese officer passed down the lines pointing his stick at those to step forward. He pointed his stick at the officer on my right then the officer on my left, missing me. Luck or act of God, I shall never know.

Those selected comprised the draft of 1,800 who sailed to Japan on the *Lisbon Maru* to work in the docks. Eight hundred of them were to perish after the submarine attack by *USS Grouper*, surely one of the most terrible sea disasters.

On 5th June 1944 1 received my first letter – from my father through the Red Cross. He wished me a happy birthday. The date was right but the letter had been written two years earlier. One man received only a single letter throughout the war. It was from his tailor demanding instant payment. The Japanese censored mail and opened it. Although we were largely officers, a lot gave up, particularly the older men, if they couldn't get cigarettes, for example. My eyesight failed because of beriberi due to malnutrition. Captain Rossini, a Harley Street oculist, read to us.

Our camp lay alongside a road. Civilians could walk close by beyond the wire. Some of the Hong Kong Defence Corps Volunteer POWs had wives in the Colony who could pass food into the camp.

For some prisoners of war, surviving our captivity was more challenging than fighting the Japanese in action.

Understandably, the Allies wanted to know what was happening in Hong Kong, particularly during the 1942-44 period. What Japanese ships and aircraft were in Hong Kong? What were their troops up to? Chinese agents of the British Army Aid Group (BAAG) based far away in China started passing messages into our Argyle Street POW camp.

In March 1943 1 was a member of Hut 3 unloading party, shifting a load of logs from a truck. The truck was open and had three foot high sides. A Japanese soldier was on guard and stood next to the driver whilst the prisoners were unloading the wood at the rear. I got into the truck in order to sweep, with my hands, the chippings and bark to the rear. This meant I was at one point some two or three feet behind the Chinese driver. I was also only some three or four feet from the Japanese guard. Just then the Chinese driver gave a cough, which made me suspicious, and threw a piece of cigarette paper over his shoulder into the truck. It landed a foot away from the pile of bark. I swept up the pile with the cigarette paper and took it away. At that time I knew nothing about BAAG. I finished the unloading with the rest of the party and took the paper to the latrines. It was blank.

During my captivity I had got to know and respect Colonel L.A. Newnham, playing chess with him in the evening. He was a former Commanding Officer of the Middlesex Battalion and one of General Maltby's principal Staff Officers. I brought the piece of paper to Colonel Newnham and he immediately took it to the cookhouse and held it up in front of the fire, and the first message became visible. We



I was given a reply by Colonel Newnham. It was hidden in a cigarette packet and left in a truck when the same driver was next on duty. Gradually the concealment of messages became more sophisticated. Some former Indian POWs, ostensibly pro-Japanese, also guarded our camp and gave us important messages on Japanese strengths and locations, results of American bombing raids and details on crews shot down, Japanese morale, shipping, aircraft, Indian National Army activity, and traitors and informants. Often this information was of considerable value to BAAG, the United States Air Force in China and GHQ India. In July 1943 this most successful

In July 1943 this most successful spying system was infiltrated and collapsed. Of the nine officers



Cigarettes are distributed to liberated prisoners of war, September 1945.



Vice Admiral Ruitako Fujita, the Japanese Naval Representative signs the instrument of surrender in Government House. The Admiral was in Command of the Japanese South China Fleet.

involved in it, I am the only one alive today. Colonel Newnham had deliberately not involved me too much, in case I was arrested and disclosed under torture what I had learnt.

He and three others were brutally tortured but refused to betray their comrades. All four were executed, and eventually all received the George Cross. I believe so many GCs being awarded in such circumstances is unique.

Throughout these war years, I thought I would never see home again. Rumour had it that the POWs were to be put in two specially prepared basements and blown up; the Japanese would then claim that American bombers were to blame.

The sudden surrender of Japan on 15th August 1945 took us all by surprise. No plans had been made for the immediate libera-

tion of Hong Kong although the Chinese Government had ambitions to take over the Colony. It was not until 29th August that I saw the grand Royal Navy fleet sailing in. It was surely a great pity that our fleet was not ready to take control of Hong Kong, with its great population earlier.

Meanwhile the Japanese guarding us had been withdrawn. Those left saluted us and often bowed before approaching us. American aircraft came over and the pilots waved at us. During these weeks the Chinese looted anything worth taking in Hong Kong.

On 10th September I boarded The Empress of Canada, bound for Manila. I had been in Hong Kong for almost precisely five years.

I arrived in Manila and spent three weeks in a US transit camp, where some 25,000 American Servicemen were getting ready to invade Japan. The American camp was something I had never imagined. There were four films to choose from every night showing on open-air screens, and almost every kind of facility.

Then I boarded a P37 American transport bound for Seattle. This was a 6,000 ton landing ship designed with

many, many others to capture the Pacific islands one by one. On board were 2,000 Americans and 40 British and Canadians. We all had blankets and mattresses. There were no complaints. We were all going home. I need hardly say the food was excellent; the galleys never stopped serving us.

After a three-week voyage on the P37, we arrived at Honolulu. At the entrance to what had become one of the world's greatest naval bases after the catastrophe of Pearl Harbour was anchored a British aircraft carrier with the White Ensign flying at her stern - a most moving sight. Two thousand of us spent the day on board the P37 as the admiral for Pearl Harbour had prohibited our landing. Our captain made amends for our disappointment by asking the ship's company to gather round the main hatch at 2.00 in the afternoon. Right on time the captain posted 40 marines around the hatch and a few minutes later Hawaiian dancers in grass skirts arrived to everybod's delight. We set off for Seattle, a five-day journey.

On the first day the Captain gave his 10 a.m. address to us over the loudspeaker: He told us "due to the cancellation of lease lend by America, the 40 part British and Canadians would be put ashore at Esquimault." (Esquimault was the Pacific naval harbour for Canada.) There was no money to send us home across the States. Britain had no money! This, like the knowledge that Churchill was no longer Prime Minister, came as a shock to me.

When we arrived in Esquimault the 40 British and Canadians went down the gangway at night one at a time. Nevertheless, the searchlights were on and a large group were on the quay below. Every person's name was called out. This led to cheering and clapping that went on for each man for



Sister S M Augustus attends a severe case of malnutition after the liberation of Hong Kong.

some time. It was a dramatic homecoming. When we came down the gangway, television was in use for the first time.

After one week in a transit camp, we finally set off to cross Canada by train, travelling first class. On the first night, after crossing the Rockies, the time came for us to go to bed. We all put on our new pyjamas (we had not had pyjamas for four years). At midnight the train drew to a halt. Suddenly the door opened and in rushed swarms of girls; they pulled us out on to the platform at Edmonton in our pyjamas and danced with us there. If you have not seen or been with a girl for four years, when something like that hapens you have an extraordinary feeling. The Mayor was there with his gold chain of office and the town band struck up, and ladies served us coffee and cakes. The next day at Winnipeg the same thing happened, but we were ready for it. Our train was the first to bring returning troops across Canada from the Pacific war, which was why the welcome we received was so great. We passed trains going in the opposite direction, bringing Canadian servicemen back from Europe. They shouted, "Don't go back to England. They are watering the beer."

Finally we arrived at Halifax on the Atlantic coast. We sailed on the Isle de France and arrived in Southampton on a grey November morning. There was no Mayor to meet us and no welcoming band playing the National Anthem as there had been at Manila, Esquimault, Edmonton and Winnipeg. Some were disappointed that there was no reception. It had to wait 50 years to be put right by The Queen on the 50th anniversary of VJ Day.

I had no debriefing at the war's end. I was just given a letter of thanks in Southampton and had a medical check-up for a few minutes. After spending three days in a hut in a park, I received a first class ticket to Woking, the nearest station to my home. And that was my discharge! I had no army pension. The San Francisco peace treaty laid down that all those in the Services would get some compensation. Over the years the British Legion approached the Prime Minister for recompense. A group went to see Tony Blair about this And finally after 50 years, recompense of £10,000 was paid. to those in the services who had fought the Japanese.

I often returned to Hong Kong after the war and witnessed the Colony's remarkable recovery under the British flag. No wonder so many from China's Mainland wanted to enjoy the many freedoms there. I was appointed architect and a consultant architect for building two very large hospitals in Hong Kong although most of my work centered in the Gulf States and Britain.

Finally, should Hong Kong have been defended in 1941? The answer must be an emphatic "yes". If Britain had lacked the courage and determination to resist and had abandoned the Colony to the mercy of the Japanese, before war had even been declared, such a sordid act of appeasement would have shocked the then neutral Americans, and even more so the Chinese who would have been greatly discouraged from continuing their weary and interminable struggle against Japan. The Japanese troops committed to Hong Kong were urgently needed elsewhere particularly for the thrust towards Australia. The prolonged resistance in Hong Kong, I believe, threw their plans into jeopardy.

And so we fought and lost, but, in my judgement, to use Churchill's words, we won "The Lasting Honour" during those terrible years of hardship.

(John Harris was talking to Colonel Oliver Lindsay, CBE, FRHist.S)
A Letter to a "Dukies Son"

COLONEL E J SHARP FICE FASCE FCMI

My very kind friend Douglas,

I ENJOYED our conversation the other day, as it is always so interesting to get the views of today's young adults. During our discussion you mentioned that your father had served in the Duke of Wellington's Regiment. Interestingly enough, we were all together in 29 Infantry Brigade in Korea and my troop, 3 Troop 55 Field Squadron, provided them with direct support. In a good-natured way, we always referred to them as the "Dukies". From my notebook, I see that they told me that the founding of the regiment took place in 1702 - long before the Duke of Wellington was born. At that time, their name was the West Riding Regiment. I worked mainly with the Battalion 2IC whose name I cannot remember and with the Pioneer Platoon Commander, Pat Baron. I was with them on one of the battles on The Hook. This was a prominent feature that together with an equally commanding one we held on the other side of the River Samichon, dominated the classic and direct invasion route from the North to Seoul, the capital in the South. Invaders had used this course starting off from the time of Ghengis Kahn!

The Eighth Army deemed our position to be "vital ground" and had we lost it, the withdrawal of the whole army would have resulted. Pat Baron and I constructed machine-gun bunkers at critical places with enormous 12in x 12in x 12ft long wooden lintels. These supported tons of sandbags and protected the slit through which machine guns could traverse. We also helped build the fighting bunkers with doglegs and chicken wire grenade traps. Another chore I remember was maintaining a listening post and connecting communication trench at "Warsaw", feature sited on the forward slope of the main position – and I mean well forward! When they heard the Chinese patrols approach, they gave warning to the command post and ran like startled stoats back to the main position.

I cannot recall the date, but one night the blighters attacked. Some got through our wire and minefields – almost by standing on the bodies of their comrades. They could not get below ground into the bunkers held by the "Dukies", and our artillery opened fire on The Hook with VT fuses. These directed the blast and shrapnel vertically downwards. As I recall, this was all at "rate-five" (five rounds per minute) from each of the Divisional Artillery's 72 guns. I hope my notes are correct. But it meant that the Chinese could not get below ground nor live above ground. At the same time, all brigade medium machine guns "firing under contract with HQ Brigade control", virtually fenced in the area of conflict with their "beaten zones"!

Come first light and things slowed down. None of the enemy remained on the position although it was still possible to see their shadowy figures at the foot of the northern slopes of the hill. The whole place seemed stiff with Chinese corpses; hundreds of them surrounding the position. There followed a process known as "relief in the line" with a new battalion taking over the position from the Dukies. I was greatly impressed by the systematic and structured way those involved executed the manoeuvre. First of all, stretcher-bearers took casualties off. Incoming sections then relieved outgoing sections almost on a man for man basis. The respective teams returned medium machine guns to their main fire positions with detailed agreement as to fire tasks. I had never seen this done before and had imagined that the out-goers just made a bolt for it with the "new boys" cursing their luck and making the best of a bad job.

Douglas, this is just my light-hearted aside, but when I followed Battalion HQ trooping in single file down the reverse slopes of the feature, I overheard something really side-splitting. A "Stars and Stripes" reporter was at the bottom of the hill. This was just like a local newspaper for the whole of the Eighth Army. He addressed a question to a young, newly commissioned ex-Sandhurst gentleman just ahead of me. "Gee, Lootenant" he said, "it must have been hell up there last night". The young gentleman gave it some thought and in measured tones replied: "Yes! It was absolutely appalling, it rained the whole time". Now beat that for a bit of understatement. I think the word "litotes" comes to your tutored mind. Later, I realized what a severe battle it had been when I heard a highly esteemed major who had a DSO and two MCs refer to the action and describe it as "quite a knees-up". I don't believe they come any harder than this, or if they did, I am afraid the British Army would not be able to participate, as it does not have the language to describe such events. Incidentally, on another occasion, this same gentleman observed me motionless under a burst of incoming mortar fire. He observed to our CO, Col Arthur Field, that this chap (me) was very cool under fire. He was clearly not familiar with the term "catatonic". It was half an hour before I could move and a further three days before I could close my mouth!

I do not know if your father was with the battalion on this occasion. If he was, he might find this account of an innocent Sapper's recollections highly amusing. The DWR are a fine regiment and it was an honour to be in their midst on this auspicious occasion

Yours Aye, Edward

We've Been Here Before !!

AN EXTRACT FROM ONE MORE RIVER TO CROSS, BY COLONEL J JOINER

IN anticipation of Turkish involvement in World War One, Britain had already dispatched a force to Bahrain on the Persian Gulf, charged with carrying out operations against Turkish Mesopotamia and safeguarding the Anglo-Persian Oil supplies. Once war broke out, at the end of October 1914, the British force moved up to the mouth of the Shattel-Arab and in due course the Military Engineer Services built a substantial base at Basra, with considerable support from Indian Army units. The terrain in Mesopotamia (which lies between the Rivers Tigris and Euphrates, and is now part of modern Iraq) presented many problems to the military engineer; the population was founded close to the Tigris and Euphrates, the rest of the country being sparsely populated and with little development of road or rail communications. This meant that the campaign followed the line of these major rivers, crossing and recrossing them continuously, the crossings often being opposed. In addition there were no local materials or timber available and shade temperatures of 120° and even 130° were not unusual.

Many bridges were built during the campaign, some over 750ft long. Indeed, up until the capture of and advance beyond Kut in September 1915 and the subsequent withdrawal of our forces to the town prior to its siege by the Turks, the Bridging Train of King George V's Own Bengal Sappers and Miners, under the command of Captain E W C Sandes RE, bridged the Tigris seventeen times, using pontoons and the local boats known as danacs. The Bridging Train had a perilous voyage during the subsequent withdrawal to Kut; it was without escort or pilots and was outdistanced by the troops on land. In a final brush with Turkish cavalry it lost the last of its eighteen pontoons and reached Kut with twelve rafts of leaking Arab boats. Luckily it was able to obtain more boats to enable it to bridge the Tigris on 5 December, thus enabling 6 Cavalry Brigade to cross the river and withdraw safely, although immediately after the crossing a number of the boats foundered. After a long siege the garrison finally surrendered to the Turks on 29 April 1916 and the remnants of the Bridging Train were marched into captivity with the remaining survivors of the garrison.

Meanwhile No 2 Bridging Train of the Bengal Sappers and Miners had arrived from Roorkee and, with the importance of bridging in this campaign, became the most important engineer unit in Mesopotamia. Royal Engineer units arrived in early 1916, soon after the Imperial General Staff relieved Army Headquarters India of operational command in the theatre. In due course Kut was retaken, Baghdad was captured on 11 March 1917 and preparations were made for a final offensive up both sides of the Tigris towards Mosul, just south of the Turkish border. On 1 November 1918 the Turkish Sixth Army surrendered at Mosul, having heard that an armistice had been signed the previous day.

Mesopotamia remained a theatre of war, however, until the peace treaty was ratified in 1924, and one bridge built during this post-armistice period certainly warrants mention. This bridge was that built across the Tigris at Mosul to the design of Lieutenant Colonel J F Turner RE, CRE of 18 Division. The existing Arab bridge was totally inadequate for heavy motor transport and a pontoon bridge was needed to enable the Division to carry out its routine tasks. At the crossing point selected the river was about 500ft wide at low level and 700ft wide at high level, with a rise and fall of 30ft and a maximum flood current speed estimated to be 25 knots. To bridge this very difficult site Turner proposed a crossing in the form of a suspension bridge laid on its side, the load on the cables being the force of current. Three horizontal catenary cables, each consisting of seven 3in wire ropes, were supported on twenty-four fully decked floats and anchored to massive concrete anchorages on either bank. Further cables were taken downstream from the decked floats to hold the wooden bridge pontoons in position; these pontoons were formed, in pairs, into rafts and connected by timber Warren truss girders which carried the roadway. Work started on the bridge in early 1920 and construction proper started in September; the 815ft long bridge, capable of carrying loaded armoured cars, was known as Turner's Folly because few believed that it could withstand the force of the river. It was opened in September 1921 and, although poorly maintained by the Mosul Municipality, remained in use until a severe flood washed it away in 1928.

Note: "One More River to Cross" is available from the Institution on Tel No: 01634 822298 or the web site under Publications for Sale, www.inst-royal-engrs.co.uk

The Flight Departing From Gate 3

MAJOR S G TENISON BSC(ENG) MSC

In addition to his biographical notes on page 15, Major Tenison was plucked from a comfortable existence in Warminster to undertake a six month tour as SO2 J5 Plans in HQ Multi National Division (SE) in Iraq; this article is a reflection on the first few weeks in his new post.

IT seems ages ago (early Nov 03, now 4 Jan 04) that the call to arms found its way to office G18, on the ground floor of the Land Warfare School in Warminster; the post of SO2 J5 Plans (psc a must) in HQ MND (SE) Iraq was vacant. Having dodged every operation for the last seven and a half years this "invitation" came as something of a surprise. I like to think that I have been engaged in Government work of the gravest importance but the truth is rather less exciting; depending on your point of view, I have not been in the right place at the right time. Only recently my SO1 had muttered something about my being "indispensable" in relation to my role with BG BPC¹; flattering but definitely untrue, as I had said at the time. On reflection, I realize he was tempting fate. So, in spite of a really cracking penalty statement, I was apparently just the man for the job; MOD experience as well as knowledge gained from helping to set up the BG BPC (should know all about the "7 Questions" planning process)!

The first hurdle was to find out what this J5 thing was. We covered G1 to G4 on the BG BPC, but 5 and beyond were mysteries. I vaguely recalled hearing about G5 doing local infrastructure in Bosnia, so I assumed, incorrectly as it transpired, that J5 was civil/military affairs; one benefit of this tour is that I am learning the role of J6 to 9 as well. Even though I had been given a rough job description, I was still not really sure what I would be doing; some might say I still don't. So, after some hasty preparations, form-filling, kitdrawing, PULHHEEMS (regulation number of limbs etc), dental (teeth all accounted for), weapons training (last on ranges nine years ago [instructor concerned for his safety!]) etc I was all set. Promised six months sun and sand (but no sea) it began to go wrong at RAF Brize Norton when the low-cost budget airline (livery, light blue) delayed the flight by six hours; not a good omen for the next six months in an airport terminal!

The MND (SE) AO, covering some 260 miles N to S and 270 miles E to W, includes the four most south easterly provinces in Iraq; Al Muthanna (NL BG and, soon, the JA contingent), Dhi Qar (IT Bde, including the RO and PO contingents) and Maysan/Al Basrah (UK Bde and DANBAT, with contingents from NO, NZ, CZ, LH, and IC²). HQ MND (SE) has established a comfortable existence in the some-

what incongruous surroundings of the terminal building. The staff branches have adopted the "open-plan office position" in the departure lounge for gates 3 and 4, under the depressingly blank "Departures" indicator board that stares down mockingly; the GOC has been installed in the *Prayer Room* whilst the COS manages *Gifts and Souvenirs*. J6 (Div Sig Regt) with civil contractors (IT/phones) have installed miles of cable, slung in net channels from the ceiling, ensuring that we are able to communicate with the outside world, both up and down. I avoided using the description "connected" because this implies a stronger bond, even mutual understanding of the situation in various HQs; as everyone knows, every higher HQ is an ass and subordinate HQs are uncooperative! Therefore, the words *connected* and *HQ* are mutually exclusive in this context.

The UK provides 60 per cent of the Division's manpower as well as most of the staff in the HQ, where all the TCN^3 and four services⁴ are represented, with large groups from IT and NL to reflect the strength of those contingents; there is also a Polish LO (from MND (CS)) and a sizable US LO contingent (from CJTF- 7^5). English is the command language of the Division, though nearly half the HQ staff do not have it as their first language and a number would not even count it as their second. However, on the whole it works; there are occasional misunderstandings but the pace of operations is generally not so hectic that this becomes a problem. The greater divide appears to be between us and the US-led CJTF-7 in Baghdad; the varied interpretation that may be applied to the language used in orders and differences in terminology describing units does lead to misunderstandings. One of my jobs is to read and comment on draft FRAGOs issued by CJTF-7 in order to ensure that, once issued as orders, they are unambiguous and, more importantly, within the capability of Divisional assets. Even the final versions are not always clear; imagine the fun to be had when seeking clarification on the exact meaning of "facilitate" or "secure" when used in the mission statement!

The exit strategy for Coalition Forces (CF) in Iraq is founded on preparing every area of Iraqi society to play its part in rebuilding the country, both literally and metaphorically; this is J5 business. The branch consists of two parts; J5 Plans and, by far the largest, J5 Security Sector Reform

¹ Battlegroup Battle Planning Course.

² NL, Netherlands; IT, Italy; RO, Romania; PO, Portugal; DA, Denmark; NO, Norway; NZ, New Zealand; CZ, Czech Republic; LH,

Lithuania; IC, Iceland; JA, Japan.

³ Troop Contributing Nations.

⁴ Army, Navy, Air Force and Civil Service (Arabist policy advisers, CIVSEC).

⁵ Combined Joint Task Force 7.



Basrah International Airport.

(SSR). The latter has responsibility for establishing, training, equipping and launching the New Iraqi Security Forces (NISF⁶); the key milestone is transfer of responsibility for security at regional level by 30 Jun 04⁷. Setting up these services from scratch would be demanding targets in any country, add to this the hatred and suspicion of the law enforcement bodies that has become ingrained over at least the last 30 years and the goal might seem beyond reach. Public loathing of Saddam's forces of law and order is still tangible, even after his capture, whilst early attempts to equip some of the services were marred by providing uniforms that looked too similar to those used by the former regime. The imminent arrival of 24 police officers from UK, to assist with the training programme, will have a huge effect on the quality of Iraqi policemen patrolling the streets.

Although progress is very gradual, there are encouraging signs. Iraqi police are beginning to deal with criminal incidents, though they continue to pay the price when attacked, often fatally, by Former Regime Elements (FRE). The population is beginning to engage in the political process, vital if Iraq is to build a stable and secure future; the governing system that emerges from the current period of transition will have to be inclusive and needs widespread popular support if it is to endure. Terrorists and criminals still operate throughout the AO, though both CF and NISF regularly arrest suspects and the Iraqi judicial system is beginning to deal with offenders in accordance with pre-Saddam law. There is a long way to go but things are looking up. Unfortunately corruption is rife but this has been a way of life in these parts since Adam chose a Granny Smith at the world's first apple tasting in the Garden of Eden (close to where the DAN-BAT is now stationed). On bad days, the fact that some police are known to be untrustworthy can be depressing; border police are known to search cars to identify those carrying attractive items, before calling their mates *Dick* and *Turpin* just down the road who finish the job.

Whilst J3 Ops deals with current operations, today, tomorrow and possibly out to about two weeks, J5 Plans is responsible for the longer term. With a staff of three, SO1 (IT), SO2 (UK) and SO3 (PO), we pull together CONPLANS⁸ for a variety of possible or definite future events. These are wide-ranging and include, for example; the possibility of being required, by the CPA9 to open Basrah Airport to a limited number of civil flights, before the civil contract can be let for it to reopen on a commercial basis; how to manage the impact of the US Relief in Place (RiP) [the largest US RiP in history, from Jan - May 04, with as many as 3300 vehicles per day on MSRs through the MND (SE) AO] simultaneously with the roulement of the IT/UK Bdes, the NL BG as well as normal

Div traffic; and providing support to CID teams investigating possible sites of mass graves.

The current project is to complete a fresh Divisional Estimate (5 Jan). Fortunately we will use the 7 Questions Combat Estimate as a vehicle, because the AO is far larger than would normally be the case for a Division, the mission is far wider ranging and the timescale is longer (six months). A full estimate would take too long; action is needed now if we are to meet the June deadline for ToA. The situation has changed significantly since the last estimate and OpO were produced, not least because of the accelerated transfer programme. The intention is to identify the *effects* required to achieve the mission; these effects, such as "protect¹⁰ essential services", "defeat FRE", will be developed into a series of FRAGOs for implementation in the next few months leading to ToA. Some staff do not have experience of the 7 Questions so I have been asked to provide a brief teaching period since, with "CATD DS" on my CV, I am deemed to be an expert in the subject; I have been at pains to play this down lest expectations are raised too much. I thought that all this had been left behind in Warminster and now wish I had paid more attention in class (and brought the presentations on CD)!

With most training focused on warfighting, few people will be aware of the huge and vital role played by J3 Ops Sp and Media Ops. Both make a vital contribution to the task of raising Iraq from the ashes in preparation for national elections to the new Iraqi Government, scheduled for Dec 05, based on the constitution now being developed. Media Ops mainly has to respond or pre-empt requests for information from national and international media but it is also able to inform the local population through Iraqi media outlets; the major functions of Ops Sp in this HQ are Information Operations (IO), co-ordinating

⁶ Police, Border Police, Riverine Patrol Service, Civil Defence Corps, Counter Terrorist Force, Coastal Defence Force, New Iraqi Army, Local Security Force and Facilities Protection Security Force.

⁷ Simultaneously with the establishment of the Iraqi Transitional Authority and also the date when US/UK cease to be *occupying powers*.
⁸ Contingency Plane

 ⁸ Contingency Plans.
 ⁹ Coalition Provision

⁹ Coalition Provisional Authority (part of the interim system of government with the Interim Governing Council (IGC)).

¹⁰ Felling pylons and stealing the copper cable, thus disrupting the power supply, is a popular pastime amongst locals.

THE FLIGHT DEPARTING FROM GATE 3

CIMIC¹¹ and Operational Analysis (OA). Three civilian analysts from DSTL¹² provide advice about what data should be collected so that we can assess whether we are doing the right thing and what issues concern the population. Patrols poll the population whilst statistics about terrorist and criminal activity are compiled from operational reports. For example, 96 per cent believe that the Coalition has good intentions towards Iraq, with the remainder believing that we only want the oil; it should be noted that this is amongst a largely supportive Shi'a population. Security remains the greatest concern and until recently provision of utili-



"Prayers to the right, gifts and souvenirs to the left".

ties was next; however, unemployment is now the second greatest concern. Without employment people have no means of legitimately supporting their family, so they turn to crime such as black market and smuggling operations. The lack of industry to provide jobs, also forces the country to import, at huge expense, much of what is required for the regeneration; the CPA is attempting to tackle this and there are reports of companies wishing to invest in the region.

The next six months in Iraq will be critical, both for the future of the country and the standing of the Multi-National Coalition Forces (particularly US/UK). There is a huge amount to be achieved and some serious obstacles in the way, not least a



ponderous national and international bureaucracy; however there are glimmers of hope. The various staff branches are able to report progress on a regular basis; the judicial system dealing with smugglers (confiscating goods and imprisoning culprits), the medical services establishing more clinics and the oil industry raising production are some recent examples. By the time I leave in early June we will be only weeks away from handing responsibility for Iraq to the Iraqis, although CF will remain for some time to provide support. If the first four weeks are any indication it will have been a fascinating, busy and rewarding tour; only time will tell whether the CF/CPA achievements will be enduring.

HQMND (SE) Ops Room - Departure lounge gates 3 & 4 Basrah International Airport.

¹¹ Civil-Military Co-operation.

¹² Defence Science and Technology Laboratory.

Account of the Construction of Pioneer Airstrip and Bridge at Fort Shean, Pahang, Malaya

KENNETH NEWHAM BSC CENG FICE FCIWEM



Second Lieutenant K W Newham was an articled pupil in Civil Engineering prior to National Service in 1952-1954.

He was commissioned into the Royal Engineers and posted to 78 Malayan Field Park Squadron, in Kluang, Malaya. He undertook several jungle operations and the construction of the work at Fort Shean and was Mentioned in Despatches.

He gained a degree in Civil Engineering from Loughborough University and subsequently worked in River engineering for the Thames Conservancy, British Waterways, Yorkshire Water and retired as Regional General Manager, of the National Rivers Authority, Yorkshire region.

INTRODUCTION

As part of the plan for the elimination of the terrorist activity in Malaya, the aborigine jungle dwellers had to be wooed into friendship with the security forces. This was necessary since their cooperation with the terrorists meant that food and information of security patrols would be available to the bandits. The original scheme had been to try to get the aborigines to settle near towns and villages out of the deep jungle. Here, an eye could be kept on them and they could be fed in repayment for their non-cooperation with the C.T's. However, the death rate among the aborigines jumped alarmingly on removal from their jungle homes, and a new system had to be incepted. This new system was the replacing of the aborigines back into deep jungle where they could cultivate ladangs and live as originally. However, to each group of about 500 or 600, within a reasonable radius, a jungle fort was to be set up, manned by Malay Police with an English Police Lieutenant in charge.

Each fort consisted of about eight or ten huts of bamboo construction built by the aborigines, comprising accommodation for about 30 men, eating quarters, food stores, cook-house, guard room and huts for some aborigines to stay if necessary. The whole was encircled with barbed-wire and ringed with defence posts. A fort is the hub of an aborigine community and into it once a week flock representative numbers of each family to collect the supplies of rice, fish, tobacco, oils, etc. handed out by the Government. These supplies are all airdropped into a cleared area adjoining the fort and handed out by the Fort Commander, the Police Lieutenant.

The only access to the forts, apart from long and difficult jungle marches, was by helicopter. Towards the end of 1953 the aborigines not only were non-cooperative towards the bandits, but became quite cooperative towards security forces in indicating bandit activity in their area. This necessitated better and quicker communications with HQ Operations.

Since the forts were now permanent, it was conceived that airstrips could be constructed adjacent to the forts. This would allow an aircraft like the Prestwick Pioneer, an aeroplane requiring only 200 yards in which to take off or land, to replace the helicopter. This was necessary because the helicopters were in great demand for emergency evacuations from jungle patrols, snappy conveyance of troops to bandit camps, and similar jobs, which only a helicopter could accomplish. At this time there were about ten jungle forts scattered about the Peninsula, the one having the largest aborigine community (about 900) being Fort Shean in central Pahang, about seven days difficult march from a road through mountainous jungle country. After a ground reconnaissance it was decided at HQ Malaya Command in March 1954, that a strip should be constructed at Fort Shean to see if the concept of jungle airstrips was at all practicable. If so, others were to be started.

78 Malayan Field Park Squadron, Royal Engineers, commanded by Major H G Bell, MBE, RE, were given the task, and I was to construct the first airstrip at Fort Shean.

EQUIPMENT

As hand labour alone would entail too long and tedious a job, some form of earth moving plant was necessary. However, any necessary tools and equipment were to be able either to be air-dropped or brought in by helicopter, limited to a 600lb payload. I therefore went to Kuala Lumpur together with a competent Malay driver to try out a Ferguson tractor and decide on necessary equipment. A patch of land was worked with various tools in the Ferguson repertoire and after weighing unassembled components and trial loading in a helicopter, it was decided that the Ferguson could be broken down into suitable weights, and tools for the job. Accordingly, the tractor was purchased, together with the following attachments:-



Royal Engineer Party - Fort Shean

- Sub-soiler for rooting
- Disc Plough
- Earth Scoop, for earth moving
- Blade Terracer, for levelling.
- Opperman Wheel Strakes
- Miscellaneous Tools

CONSTRUCTION PARTY

As the bulk of the work to be done necessitated unskilled labour, and abundant aborigine labour was available, a minimum number of sappers was to be used. Accordingly on April 6th, 1954, six Malayan sappers and myself were flown by helicopter into Fort Shean to construct the airstrip.

AIRSTRIP SPECIFICATION

THE specification was a little vague until the difficulties had been assessed. The following were suggestions –

1.	Length	At least 150 yards of good braking surface.		
2.	Width	(a) 20 yards minimum, 25 yards if possible		
		(Pioneer wing span is 50 feet).		
		(b) In addition to 2(a) a 25 feet clear width		
		on either side for wing clearance is desirable		
		but not essential.		
3.	Approaches	600 yards at each end of the strip cleared		
		for approach run of aircraft.		
4.	Gradients	(a) No appreciable cross-fall		
		(b) Maximum longitudinal slope of 1 in 30.		

SITE

THE site for the airstrip was, after initial clearance, found to be a river terrace with a 40ft drop on the eastern side down into the present river course. At the southern end there was a 20ft drop, also down to a river, running between the strip site and the fort. The terrace from east to west was approximately 110ft wide before the ground rose steeply at the western side to a slope of about 1 in 2. The terrace slope was about 1 in 30 down from south to north and about 1 in 20 down from east to west. The strip was to be due north and south and two-way.

SPECIFICATION OF ACTUAL AIRSTRIP CONSTRUCTED

- 1. Length 200 yards of grassed surface.
- 2 Width (a) 25 yards. Main landing strip



Typical Semai.

(b) Wing clearance of 25ft plus on east side and 10ft on west side.

Approaches 600 yards each end, north approach straight south approach having 70 degree turn about 200 yards from touch-down.

4. Gradients

(b) 1 in 33 slope longitudinally down from south to north.

EMPLOYMENT OF ABORIGINES

(a) 1 ft 3 in crossfall.

FORT Shean had, as part of its garrison, a Malay Field Assistant, whose primary function was to liaise between aborigine and garrison in matters regarding C.T. activity. He was able to contact directly with the various penghulu by means of runners, and through him all the aborigine labour was recruited.

I was to employ such numbers of aborigines as were necessary and repayment was to be at the rate of 2 dollars (4/8d) per day.

Aborigine Shop

SINCE the aborigines were to receive cash payments, some means of spending the money they received was obviously necessary, and so a shop was instituted. Supplies of sarongs, lipsticks, brooches, lighters, cigarettes, tobacco, pen-knives and other items were air-dropped as requested and the aborigines traded at correct market prices.

It is interesting to note that although only 500 dollars was the amount taken in for payment of labour, actually over 2500 dollars were paid out, replenishments of cash being made by drawing on the money handed in at the shop.

STAGES OF WORK

Initial Clearing. The site was not virgin jungle having at some time been partially cleared and having had the majority of trees lopped, most probably by aborigines who would use it as a ladang. However, it had long since completely overgrown again and was thick with tree stumps, creepers, trees and bamboo. A party of 40 aborigines with parangs and beliongs was recruited for the clearing of the vegetation for a length of about 250 yards and width of 40 yards. No explosives were used.

Helicopter Landing Zone. The river separated the airstrip site from the fort so a helicopter landing zone had to be made on the site in order that the Ferguson tractor and implements

ROYAL ENGINEERS JOURNAL



Site during initial clearing.

could be brought in. This consisted of removing roots from an area about 50 feet in diameter and levelling it off. This was done by using changkols, a new tool to the aborigines and a few cut feet were suffered.

Preparations for Tractor Arrival. A hut made of split bamboo tied to uprights with rattan, but as yet having no roof (the helicopter would blow it off), was constructed. Two sets of shear legs with a horizontal beam over them were also made of young trees. These were to help in the assembly of the tractor. The fort possessed a set of 1 ton lifting blocks which were indispensable throughout all the work.

Tractor Arrival. The tractor and implements were brought in piece by piece by a Sikorsky S.55 helicopter of the Royal Navy in seven trips. Owing to bad weather on the day of the lift, only three trips were possible that day, the remaining four being on the following day. Turn-round time at the fort for unloading the helicopter was only about four minutes, i.e. landing to take-off, and one whole journey took about one hour. By the time the last load of tractor implements was arriving, the tractor was assembled and being tested.

Footbridge. Since wading across the river was the only means of reaching the airstrip site, a convenient 2ft diameter tree adjacent to the river was chopped down to form a footbridge. Three inch diameter trees were nailed longitudinally on the shoulders of the trunk and horizontal bamboo slats tied



Largest tree removed during funnel clearance.

on to form a walk-way. This footbridge was only a temporary one until a large bridge capable of carrying the tractor was built. Because of its falling very low in the water, it was washed away during a heavy storm after about one week's use. However, it served its purpose as the main bridge was being built concurrently with the work on the airstrip.

Clearing of Chopped Vegetation. The vegetation which had been chopped down during the initial clearing was set alight. About 50 per cent, mainly bamboo, burned, and the remainder was dragged to the edge of the strip and thrown into the river. The clusters of bamboo roots and tree roots were the only vegetation now left.

Disposal of Roots. This was a much larger problem than first envisaged, there being about 30 tree roots and approximately 250 bamboo clusters, each of about a dozen roots. The tractor using the subsoiler dealt effectively with the smaller and newer bamboos, but could not tackle the larger ones. The Semai using changkols and shovels and the sappers with axes could clear them, but progress was painfully slow since the roots were required to be taken out completely, so that the earth scoop could be later used. They were therefore blown up. The charges were placed about 18ins below ground level in a circle of three around each bamboo cluster, each charge being 1½ lbs. This system lifted the bamboo roots completely out of the ground. For tree-stumps a central mine charge of



Burning bamboo.



Blowing up roots. (About 120 clusters of bamboo are being blown up).



Root clearing using sub-soiler.

about 3lbs and cutting charges on each root were effective. **Rock Clearing.** About a dozen boulders actually on the strip were unearthed during the clearing operations. These were generally about 5 or 6ft in diameter and about 4ft above the finished level of the strip. Once a single charge had split the rock the smaller charges of about 1½ or 2 lbs. could be placed in these cracks. The broken stone was rolled or carried away by hand and thrown into the river. The stones were cleared down to a depth of 1ft below the finished strip level.

Earth Moving. On an average the unfinished level of the strip was about 4 or 5ft higher on the east side than on the west. This necessitated quite a lot of earth moving. The earth scoop holds something less than 1/4 cu. yard. After an initial try-out with the plough followed by the earth scoop for bulk earth moving, it was soon evident that the ploughing was unnecessary as the earth scoop took greater loads and cut quite easily in unploughed earth. The ploughing was soon destroyed too by the constant tracking of the tractor to and fro. Ploughing was therefore stopped. Earth moving was continued until the cross-fall was about 1ft downwards east to west.

Levelling. Due to the constant compaction by the tractor wheels, the levelling operation using the blade terracer when immediately following the earth scoop, was a little difficult. The blade tended to leave a series of undulations even though



Rocks on the strip.

levelled with passes at right angles to each other. A disc harrow would have been most useful to overcome this.

Compacting. The 1 ton roller was not used for compacting until the levelling stage was completed because during the earth moving the soil was well compacted by the tractor wheels. During the rolling the bumpy parts were levelled using changkols and any exposed portions of the sandy subsoil were covered with about 1 in of good top-soil dug from the edges. The finished surface was quite flat.

Fertilizing and Grassing. Only the landing portion, i.e. 200 yards by 25 yards, was to be grassed and on to this portion was spread 3 cwts of phosphate fertilizer, (a job the aborigines liked, probably because of the colour change they underwent!). About 50 sacks of grass roots (axonopus affinis) having been dug from Kuala Lumpur airport were free dropped by the Royal Air Force, and these roots were dibbled in at about 9in centres. Women were employed for the actual planting while the men made holes with pointed sticks. In this way, 25 planters could complete ten yards width of strip per hour.

Watering. During the grassing period, no rain occurred, so the Police 2in water supply pump was borrowed and the strip watered for two hours each evening for about a fortnight. About 80 per cent of the planted grass took hold.





Levelling strip with blade terracer.



Final compaction of strip.

ROYAL ENGINEERS JOURNAL



Grass planting.



Prestwick Pioneer aircraft landing.

north of 18 feet and a cross-fall away from a the river of 1ft 3in. A vee ditch was cut using the blade terracer on the tractor, at the foot of the rising ground to the west, running parallel to the strip and into a depression to the north of the strip. From there the surface water ran into the river. The tendency was for the water to run diagonally across the strip forming small gulleys and constant filling in and checking with further grass planting would be necessary until the grass matted completely.

Miscellaneous Strip Jobs

(a) Landing Markers

Five red and white markers along each side, of size 2ft by 6ft and two white touch down markers at the ends, size 2ft by 12ft, were made out of old five gallon cans opened up and flattened out.

(b) Wind direction indicator

A wind-sock made out of a parachute and attached to a pole by a swivel made from the lid of an empty gun-cotton box was erected on the eastern side of the strip just outside the clearance area.

Funnel Clearing. Since the fort area and supply dropping zone formed the approach run for one end of the strip, only one approach had to be cleared. For a length of 600 yards and with a slightly diverging angle, all trees and bushes were cut down on the north approach. The exceptionally large trees

were blown up, but it was found more economical to let the aborigines chop down anything up to about 2ft in diameter. As much as possible of this was burned.

Tractor Removal. After a trial landing with a Pioneer aircraft, jungle airstrips were now deemed to be feasible propositions and others were to be started. More tractors had been purchased and the one at Shean was to be transferred to another Fort. Accordingly the Ferguson was broken down into its transportable components and lifted out by helicopter to For Net some miles further north.

BRIDGE

AFTER completion the airstrip would be in constant use, since some form of bridge spanning the river between the strip and Fort was necessary. The safeguarding of the tractor during construction of the strip necessitated leaving guards out of this Fort area which ruined the defence system of the Fort itself. The bridge was therefore made substantial enough to carry the tractor, allowing it to be kept within the Fort perimeter during night-time. The construction was started at the same time as work on the strip itself and the two jobs progressed simultaneously.

The bridge consists of three spans of 60ft, 40ft and 20ft, supported on two bank seats and two piers. The two shortest spans cross land which is covered by the river when in flood.



Bridge roadbearer being pulled into river for floating down to bridge site.



Decking of the bridge in progress.



Completed bridge, showing anti-scour precautions.

The longest span crosses the river itself and has a fall of 18ins towards the fort. The carriageway between guides is 8ft.

STAGES OF CONSTRUCTION

Bank Seats. Each bank seat comprises a 10ft long, 18in diameter section of tree trunk dug into the ground. On the airstrip side an approach was dug for about 30ft with a fall of about 3ft to help to offset the 4ft 6in difference in the two bank seat levels. At this depth of 3ft, rocks were encountered and the remaining 18ins level difference was accounted for in the fall of the main span over the river.

Pier Footings. The ground at the pier positions was dug out to a depth of about 18ins, and a mattress was laid comprising two layers of split bamboo, one on top of the other, and at right angles to each other.

Piers. Each pier is 7ft high and consists of pairs of 15ins diameter tree trunk sections, 10ft long and at 3ft centres laid on top of each other with 6in diameter sections, 4ft 6in long laid between pairs at right angles as spacers.

Roadbearers. Trees for the roadbearers had obviously to be of as uniform a section and as straight as possible. They also had to be quite near to the river bank and upstream of the site, due to the rocky nature and shallowness of the river, so that they could be manhandled down to the site. Since about 175 yards upstream there was an impassable rocky barrage, the choice was limited to about 20 trees. Felling commenced and with four or five trees being spoiled by splitting on falling, suitable lengths were cut off the others where they had been felled. The four long trees for the 60ft span were very difficult to handle even when in the water, due to the shallowness. A gang of 30 aborigines heaving, levering and pushing, had little effect. Each had to be winched (using the 1 ton blocks) all the way to the site. The damming of the river with boulders below the site to raise the water level was ruled out because of the considerable fall of the river. As long as a complete day was taken in getting one roadbearer to the site. When the main span roadbearers arrived at the bridge site they were hoisted into position. The tractor dragged one end up skids on to the bank seat on the strip side and the other end was hauled up skids resting on the pier by straight pulling on ropes. The shorter span roadbearers were pulled up skids similarly. To each span there were four roadbearers, each



Completed bridge and airstrip looking north.

18in diameter laid in two pairs, the centres between the pairs being 5ft. Road bearers on adjacent spans butted up to each other and were fixed by timber dogs.

Decking. Some 360 in number of 3in diameter young trees, 10ft long were required for the decking. The first 200 were easily found but the remainder had to be fetched from as far as one mile away, (quite a distance when one is surrounded by timber and it is timber for which one is searching!)

The tops of the roadbearers were levelled up as far as possible by trimming and the decking nailed, together with spacers, giving about a 1in gap between adjacent members. This was to eliminate ponding and consequent quick rotting of the decking.

Anti-scour Precautions. Because the river when in flood might wash away the pier footings nearest the river, some protection against this was necessary. A split bamboo revetment was erected about 2ft away from the pier on the river and upstream sides. Earth filled sacks were placed between this and the pier to a height of 5ft and then heavy stones piled up on the outside all the way around the pier.

SUPPLIES

APART from the tractor, all supplies, as requested by radio signals, were parachute airdropped weekly by the RAF from Valetta aircraft. These supplies included food, clothing, petrol, oil, all explosives (including detonators), cement, paint, books, mail etc. Outgoing mail was collected by helicopter about once fortnightly.

SURVEYING INSTRUMENTS

A TAPE and indian clinometer were the only items available for survey work. A stand was made for the clinometer and a 14ft long bamboo was marked off in 3in divisions, painted, and an adjustable slide with a rod for operating at the higher readings was fabricated. Having taught the staff operator how to read the staff to the nearest inch, it was possible by zeroing the clinometer and sighting to the slider on the staff to get a reasonable indication of level.

ROLLER

An empty drum with towing attachment was brought in with the tractor. It was filled with concrete made from sand from the strip, stones from the river, and air-dropped cement. It weighed about a ton.

ABORIGINE LABOUR

A DAILY average of about 15 paid aborigines were employed. Usually the wives also helped and often the children gave a hand just for the fun of it. Employment was on a weekly basis and it was found best to recruit a completely new party each week because work output dropped as the week progressed. The working hours were roughly 7.30am to 3.30pm with occasional breaks of 10 minutes for a cool-off in the river. The working week was seven days. Payment was made each Sunday, an inked thumbprint being the aborigines' receipt. The best method of supervision was found to be when each sapper acted as ganger to a party of aborigines. Special treats created goodwill, such as a weekly "fish bomb" in which a quantity of P.E. was exploded in deep portions of the river, and the hundreds of stunned fish were collected for food by the aborigines and of course the fort personnel.

Periodically a party of aborigines staged special dances for us to music created by their own instruments – hollow bamboos which they beat on to logs, nose flutes, primitive string instruments and others.

HEALTH

FORT Shean was a bad spot for malaria, there being 14 cases in the Police garrison during the period of our stay. None of the Engineer party suffered however. Many aborigines came for treatment of various ailments, most of which responded remarkably to Codeine tablets – psychological treatment only!

Sport

A BADMINTON Court was constructed and used most evenings.

TERRORIST ACTIVITY

No bandit activity in the fort or strip area occurred during the stay, although one Bandit was killed about a mile away by a patrol from the Fort.

PERIOD OF CONSTRUCTION

THE labour breakdown is shown in Figure 1. The Engineer party arrived on April 7th 1954 and left on July 2nd, after twelve weeks. The bridge construction took 20 days and the first pioneer aircraft landed on June 22nd after 11 weeks of unbroken work.

CONCLUSION

THERE are now other jungle airstrips under construction in Malaya similar to the one built at Fort Shean.

GLOSSARY

Aborigines	The main types in Malaya are Negrito, Senoi and
	Aboriginal Malays. The ones at Shean were a Semai
	tribe of the Senoi type
Beliong	A small bladed axe with a very whippy handle.
Changkol	A Malayan tool like a large bladed hoe.
C.T's	Communist Terrorists, Bandits. The terrorists in Malaya.
Dollar	1 Malayan dollar approximates to 2/4d.
Ladang	A cultivated jungle settlement.
Parang	A broad bladed cutting knife about 12ins long.
Penghulu	Chief, head of a family.
P.E.	Plastic explosive.
Rattan	A tough pliable creeper.
Split Bamboo	Bamboos partially split longitudinally, opened up and
-	flattended out. Used extensively for building huts.

JOB	R.E. Man/Days	Aborigine Man/Days	Tractor Hours
Clearing Undergrowth	39	217	121
Earth Moving	11	27	106
Levelling	26	44	62
Compacting	3	10	34
Prepare Surface	15	70	
Grassing	31	147	
Funnel Clearing	31	210	
Drainage	5	21	13
Tractor Bridge	96	184	15
Rock Clearing	84	232	
MISCELLANEOUS JOBS			
Making L.Z	5	40	
Explosive & Tractor huts	8	6	
Footbridge and road to bridge	4	36	
Lift of Tractor in and out	14	6	
General	10	24	
Watering strip 25 hours			
TOTALS	382	1274	351

Total wages paid to Semai Rate \$2.00/day \$2,548.00

Figure 1 – Labour Breakdown.

A Forgotten Episode The Royal Engineers and Submarine Mining 1870 to 1904

T POWELL



The writer is a retired teacher who, despite serving in the Royal Air Force in the mid 1950s, has an interest in 19th Century technology, the Army and inter-service relations. His previously published work related to dock engineering but for some years he has been researching coastal defences.

CORPS responsibilities in mine warfare are now confined to land operations but this was not always the case. Between 1870 and 1904 the underwater, or submarine mine, defences of British harbours were vested in the Army and the Royal Engineers and their auxiliaries carried out the work.

Despite some isolated work in earlier years significant development in underwater mine warfare had to wait until the mid 19th Century when, first the Russian War 1853-56 and then decisively the American Civil War 1861-65, revealed the potency of submarine mines.

Quite how a seemingly naval affair became an Army responsibility was partly a matter of earlier R.E. experience, particularly the work of Colonel Pasley from 1839 in the electrical detonation of explosives underwater, but primarily the ordnance responsibilities of the War Office. In 1855 the War Department ordered some limited experiments with electricity and fuzes at the Woolwich Arsenal and from 1856 the newly constituted Corps of Royal Engineers was able to participate at Chatham.

Austrian Military Engineers were well in advance of British experiments, so much so that they deployed controlled mines in the Adriatic as early as 1859. This and the experience being reported from America clearly had implications for a naval power such as Britain. In June 1863 the War Office asked for Naval co-operation in a proposed Joint Committee on "Floating Obstructions" to consider, amongst a range of coast defence ideas, mines. A guiding memorandum from the patriarchal Inspector General of Engineers, General Burgoyne became the starting point.

Burgoyne anticipated that the likely role for the developed minefield was to close part of a navigable channel and bring attacking ironclads (the battleships of the time) within effective gun range of a fort. In the context of the contemporary debate on the defence of Portsmouth this was a timely judgement. Recent technological advances in steam warships and guns had highlighted the vulnerabilities of the naval harbours – the defence of which was an Army responsibility – and to the advocates of fort building some mix of armoured sea forts, rifled guns and mines would have seemed a good plan. Mines could act only once of course and the military doctrine that the minefield was an adjunct to artillery defences was an early and, in the absence of war experience, long held tenet of British military planning. The Civil War experience had shown too that minefields themselves had to be protected from enemy actions intended to disable them. For these reasons and for the rest of the century, until finally challenged by the Navy, no argument for mines was complete without a reference to guns.

Though the Royal Engineers offered a joint course of instruction at Chatham in September 1867 the Navy decided its circumstances – protecting temporary fleet anchorages and countermining – merited separate schools.

Mine defences for Bermuda were being promoted in early 1869 and in August the Naval Attache in Washington reported the establishment of an American Torpedo Corps. Two days later the British Embassy in St. Petersburg was asked to investigate Russian mine developments. In October the ambassador passed on Admiral Popoff's boast that "if a British Fleet should visit Cronstadt again, it will find 500 of these engines laid down in the approaches to the harbour." Russian mine establishments remained closed to the British but German mine stations were regularly visited, French, Italian and Austrian officers attended British exercises in the late 70s, and the Scandinavians exchanged test results.

The 1868 report of the Floating Obstructions Committee was circulated to senior naval officers in 1869 and in September the Admiralty pressed for a secret joint committee to work out mine defence details.

But well before the technological and organizational complexities of mining had been mastered the outbreak of the Franco-Prussian War in July 1870 caused a minor defence panic. The army was in no position to move a force to Antwerp to guarantee Belgian neutrality and with French warships passing up the Channel there was the familiar concern about a possible French attack. This perceived weakness gave a kick-start to British mining and the sought for "Torpedo Committee" was established in the same month to oversee the practical details of mine defences. For the first time, mines were included in British defences.

The Torpedo Committee got down to work as the imagined threat evaporated. Contemporary progress in electrical science and the technology of commercial submarine telegraphy were great and continuing assets but the fairly primitive state of technical knowledge and materials regarding the mines and just about everything else associated with them meant much experimental work was needed at Chatham and Stokes Bay near Portsmouth, over the five or so year life of the Committee. In the course of these trials guncotton (made safer in Government Laboratories by 1868) emerged as a more effective underwater explosive than gunpowder.

The anticipated use of mines in coast defence meant the Committee, with safety and freedom of navigation in mind, set great store by the electrical control of mines. For the Army therefore, the technology and doctrine evolved around a system based on stationary ground or buoyant mines linked by electric cables to a shore station which by observation or circuit closers, directly or indirectly fired the mines. The practical limits of assembling and laying multiple mines and cables and carrying out accurate observation meant potential minefields would be inshore and effectively harbour rather than coast defence. As contemporary naval tactics generally presumed close range attack of forts or running by, prior to bombarding dockyards and arsenals, this was not then perceived as a handicap. Mine cases, moorings, fuzes, cables and switches and procedures required prolonged development as did the uncomfortable work of learning how to buoy and lay minefields in difficult waters.

Meantime the Austrians had pushed on and Col. Stotherd RE – a mine specialist – found a well planned and complete mine depot at Pola on an official visit in the Summer of 1871. He did



The earliest mine laying vessels never carried more than a handful of mines. The lengths of mooring lines and electric cables were determined from the survey chart, made up in the depot and matched to each mine. The possibility of confusing or entangling a multiplicity of wires was one early reason for preferring small vessels with limited loads. Individual mine cables were joined to main cables at junction boxes in small boats set aside for the purpose. After an electrical test the junction boxes were submerged. To confuse the enemy dummy mines were laid and the sea floor strewn with old cables and chains. Shore landings of cables were hidden.

though express doubts about the training and arrangements to use conscripts.

A comprehensive British scheme had been drawn up in July 1870 embracing the naval stations at home and abroad and mercantile ports where geography allowed. Portsmouth, where the sea forts were not ready, Plymouth and the Medway were priorities and R.E. staffs for each were listed as two officers, six N.C.O.s and 44 sappers. An establishment of one steam tug, launches, lighter and boats came to £7,000 and plans for piers, workshops and stores were ordered. In July 1872 4th Coy. R.E. went to Woolwich to collect stores and before the year was out, had laid a trial minefield in the Medway from the stock of 1,800 or so mines purchased. Mines and sappers were sent to Bermuda and Halifax the following year and 33 Company brought into the submarine mine service. Col. Stotherd's *NOTES ON DEFENCE by SUBMARINE MINES* formed the first British manual.

One consequence of the initial joint nature of the introduction of underwater work was the early divided responsibility in mine defence - the Navy to supply the vessels and their crews, the Army responsible for the mines and minefield plan. Clearly there was some overlap and in the parlance of the day, " cordial co-operation" was expected. The Engineers were trying to establish drills and routines but naval crews often came as available and the success of practices was limited by a lack of continuity. At first too, the vessels supplied were not always suitable. When 4 Coy. at Portsmouth practiced off Fort Monckton in 1873 the small iron coast gunboats, which the Navy was building in quantity, proved very unhandy when it came to laying cables and mines. All the work on buoying and connecting up cables was carried out from sailing and rowing boats and practical experience in the short seas, strong tides and opaque waters of the Solent showed that mine laying was going to be far from easy around the British coast.

On the other hand R.E. expectations sometimes ran ahead of reality, bringing the War Office and Admiralty into dispute. In the Summer of 1875 – with clear skies and lack of tides no doubt encouraging – an ambitious plan for a complete mine

defence of Malta was drawn up locally. It required a naval commitment of seven tugs, 13 launches and 48 other craft and nearly 400 naval personnel. This last was too much for the C.inC. Mediterranean, who wrote personally to the Admiralty questioning the scale of the exercise. Unaware of the plan, the War Office diplomatically settled for a defence of Valetta's Grand Harbour. The Navy was not willing to tie up its men in static defence and by December Admiral Drummond in Malta was recommending that mines " be left entirely in the hands of the military...after providing...boats and fittings." This was the first of several turning points in the story of Army mining and by the end of the following year the War Office, seeing some advantage, had drawn up a list of craft required, adding in the newly built MINER class just appearing.

When in 1875 France organized its mine defence it was entirely in the hands of the navy. On learning of this the Admiralty gave some thought to organizing a "torpedo corps" with



Copy of plan showing minefield of 1878.

The site of many early joint exercises – Fort Monckton at Portsmouth 1878. Though this plan is much reduced, the mines, cables and position of junction boxes may be seen. In the early days wire rope and timber obstructions were added for good measure as were a handful of guard boats. Latterly mines were generally laid in small groups.

naval reservists, but by the end of the next year decided the army was better placed to take charge. There was some truth in this, for the Royal Engineers had already appointed a first Inspector of Submarine Defences to supervise its mine service.

The Naval stations had received early mine defences but in the late 1870s the crucial British coaling stations around the world were generally without any modern defences. Similarly, valuable home commercial ports were largely undefended. A succession of memorandums from the Inspector General of Fortifications during the Near Eastern Crisis 1877-9 enumerated the deficiencies in garrisons and guns and costed temporary and permanent defences including mines; but with full provision at £3.8M and with anticipated problems in finding the men, there was no prospect of an early start beyond allocating some money for mines in 1877. This state of unpreparedness dragged on. In 1880/1 Lord Morley's Committee looked at commercial harbours, actually visiting the ports and coming up with a scheme

of guns, mines and torpedo boats, but nothing was done.

At this time there were five submarine mining companies each of three officers and 93 NCOs and men spread out over ten stations. Hard pressed as they were to provide mines at the naval ports, the R.E.s and Committee alike welcomed a recent report on volunteer forces, the latter believing "that a large population of artisans and boatmen would afford an ample supply of men well equal to the duties ... " They were right. The idea having been mooted on the Tyne in 1873, came to fruition in I.G.F. Sir Andrew Clarke's time. The Tyne "sub-miners" were followed by units on the Clyde, Mersey and other mercantile ports. The regular RE component of these units came from the new Coast Battalion R.E. which was officered by men recruited from warrant and non-commissioned officers. To support regular submarine mining companies there was a specific Militia force; the N.C.O.s and men recruited from local boatmen allowed an instant injection of seamanship into "water work". By 1885 there



Officers class – the later historian of the service, Lt. Baker-Brown is top right.

was approval for an expansion to ten regular, four militia and four volunteer companies with a four-company locally raised battalion, for Indian Ocean and China stations.

Submarine mining exercises were typically arranged for the Summer months and mine detonations often simulated with small charges, but because much was new and the Navy, with offensive littoral operations in mind, wanted to determine the techniques for counter-mining there was a series of relatively small scale joint exercises off Fort Monckton from 1875 to 1880.

In 1885 during one of the periodic Russian war scares, the fleet was mobilized but the mine defences were found to be "utterly unprepared" for want of personnel and organization. With a decrease in tension the Channel Fleet was sent to cruise in Irish waters and a wholly naval exercise, including a test of harbour defences, took place in Bantry Bay.

The following year a large scale joint operation to test defences took place in Milford Haven in Wales. From the, by now experienced, Channel Fleet five ironclads and supporting ships formed the attacking squadron which was ordered

to force a passage defended by 100 mines, covered by guns, searchlights and obstructions. To clear a safe channel the attackers, in boats, had to creep for cables and progressively countermine the minefield which was a defence in depth. The object for the defenders was to keep the largest mines intact until the squadron attempted a passage. This was to be not " a trial of strength between the forces engaged but a ... practical experiment." But, inflamed by a heady atmosphere of gunsmoke, small arms fire, signal rockets, sweeping searchlights and explosions, the Navy soon lost track of the didactic intent and pursued their plan with characteristic Nelsonian gusto regularly ignoring umpires rulings. The confusion was considerable and for the defence the results mixed, but out of the chaos the Army secured some useful lessons most particularly the absolute necessity of organization and the regular combined training of all the elements forming the defence. The Army was able



Submarine miners wore a distinctive work dress based on naval and mercantile costume. – pilot jackets, jerseys and sea boots, the men having a cap based on the early naval pattern. This is the first class of the Tees Volunteers, May 1888.

to address some of these problems in a further series of small scale exercises through to 1892 but thereafter joint operations disappeared from the agenda for a long spell.

For the government the economy of mine defence had been one of its early virtues and mines were cheaper than the new breech loading guns now appearing. Edward Stanhope, a tireless if rather pacifist inclined, Secretary of State for War, thought that there was still a significant place for mines and, despite a mass of contradictory and confusing expert evidence given to his committee, they featured significantly in the Army estimates for 1888-9. But these were years of uncertainty, particularly in the question of new weapons and their deployment in any future war. Not for the first time, reflecting perceptions that there was a need for re-organization to take account of new conditions, moves were made to transfer the mine service to the Royal Artillery or organize a separate Coast Defence Corps. Only the likely complexity of the task and the potential for dislocation stayed these proposals.



The final minelayers carried twenty or so mines on deck. Mines were slung in order, alternately on each bow, using the ships derricks. Mines were shifted forward on rope mats. This of course was a long way from the high speed laying of independent mines over the stern practised in both World Wars. Virtually all the RE vessels were transferred to the Royal Navy in 1905 as were the mine stations.

A FORGOTTEN EPISODE

The final decade of the 19th Century was the period when materiel was approaching maturity; observation mines and electro contact mines in various sizes were essentially fully developed as were their systems. With mine service vessels now under Army control, much larger and better equipped mine layers appeared. Annual exercises demonstrated growing efficiency and the new Volunteer units showed great promise, but laying a full minefield was expected to take 10 to 12 days, a hoped for lead-in to hostilities – an optimism dismissed by some commentators. Despite all this, at no time was a complete mine defence ever laid at one of the main home stations, such was the pressure to not hinder seaborne trade.

The essential searchlight illumination of inshore waters was now established by the R.E.s (though it had become clear that typical British coastal atmospheric conditions would disallow complete effectiveness) but regular RA/RE exercises in the use of quick-firing guns, mines and lights together were not yet universal and indeed in some districts, for want of the new guns, had never been practised. A combined services exercise involving all the defences and the examination and pilotage of ships through minefields, as envisaged in war plans, existed only on paper. These years also brought a realization that further shifts in weapons and tactics had removed the likelihood of a heavy naval attack in inner waters; for the Inspector of Submarine Defences this called for some adjustment to mine defences.

Plans of minefields had existed from the outset of the service and arrangements for informing the naval authorities had been formalized since 1873. In the early years the essentially limited and ephemeral nature of practice minefields meant Admiralty objections to any curtailment of navigation were few and far between. But after some desultory exchanges on procedures in the 1880s, the Admiralty in November 1887 asked the War Office if it should draw up some regulations for entry into defended ports. The answer was yes; but with growing confidence in its mine defences the War Office drew up its own draft sending a copy to the Admiralty. Naval C.inC.s meantime had been asked to submit their proposals and the Admiralty was on the point of adopting the model suggested by Plymouth when a spanner fell into the works. The well thought-of Captain Wilson VC R.N. newly arrived for an appointment at Portsmouth, pointed out that, because of the military expectation that merchant vessels would be held outside minefields for examination, there was some danger of harbour entrances, despite "friendly channels", becoming blocked with shipping. There followed a flurry of correspondence between the Admiralty and its C.inC.s and the War Office over a mutually satisfactory set of regulations. The problems were such that the Admiralty asked in 1890 for a new joint committee but the War Office, confident that their existing plans had already been approved by local naval authorities, somewhat tartly, declined. Admiralty influence in political circles though was growing apace and they would soon have their way.

Not entirely disconnected with Naval concerns about Army mines, the somewhat secret world of the mine service had felt a sudden and unexpected glare of publicity in 1886 when the growing debate on defence revealed Major George Clarke R.E. as a critic. A prolific and influential writer on service matters, Clarke presented the case against mines from the standpoint of a member of the school of thought which promoted naval solutions to questions of Imperial Defence. Clarke assembled some persuasive arguments largely dispensing with a role for a mine defence of British harbours, particularly the complex and time consuming Army way of doing things.

Even though mine defence throughout the Empire continued to be supported by the Government the navalist, or "Blue Water", view of Imperial strategy was gaining in influence. The War Office gave way to Admiralty pressure in Jan 1891 and a new agreement in 1892 gave the Admiralty further powers over the placing and nature of mines and electric lights. An updated minefield protecting the Sheerness Dockyard and the Medway seemed fraught with hazards to their Lordships when plans were submitted in 1896. Electro Contact mines, suggested the Navy's Hydrographer, should not be moored nearer the surface than 36 feet (the peace time figure!) and exchanges over the siting of a searchlight for running the Brennan wire guided coast defence torpedo at night, ran on until October 1899. Also unsettling for the Army, hitherto the provider of fixed defences, was the appearance of a naval boom.

At the turn of the Century naval confidence had grown to the point where substantial enemy attacks on defended ports were considered improbable in the face of existing naval strength. Night attacks by torpedo boats, particularly " ante-declaration" attacks, were though a worry. A complete system of searchlights and QF guns was desired but mines, normally moored at some depth or on the sea bed, did not readily fit into this scheme. Though schemes for anti t.b. mine defences were trialed in 1894 many entrance channels were wide and torpedo boats slight and of shallow draught so the problem was considerable. The question of the Army's ability to correctly identify friend from foe constantly worried the sailors too. In fact by this date the regular units were more involved with searchlights than mines and a joint services conference on coast defence in December 1900 did not mention mines at all.

Submarine mining was, in today's language, being marginalized. A body blow came soon, again from an unexpected quarter. William Brodrick, Sec.of State for War, wrote to the Admiralty in January 1903 asking for their opinion on the future of mining. This, for the Navy, seemed a heaven sent opportunity to rid British harbours of objectionable minefields. It was not hard to make an operational case - most obviously the modern guns of any enemy ship intent on bombardment easily outranged any conceivable controlled minefield. The Navy had also a ready and, they hoped, more potent substitute underwater defence – the submarine. The first flotilla had formed the previous Summer and mines clearly couldn't be mixed with submarines.

Initially exchanges focussed on the abolition of mines at the Home Naval ports, the Admiralty having concerns about the defence implications for the Navy of a more extended abolition. There were also some doubts about the as yet unproven submarine, but they took the opportunity of sending their Inspecting Captain of Submarines on a tour of R.E. mining stations to check their suitability for conversion to submarine bases. A joint conference in the latter part of 1903 on the future of mines under the presidency of General Sir William Nicholson, restated the traditional view on the role of mines but acknowledged (with prompting from the naval members) that submarines could have a stronger deterrent effect than ROYAL ENGINEERS JOURNAL



A surviving block plan of a defence minefield in the River Medway 1896. At this date torpedo boat attacks in poor weather or at night were thought the more likely. Observation mines laid on the sea bed, the only type at this date likely to be deployed in fairways, were not considered effective against this class of vessel – another nail in the coffin of defence mining. It was of course submarines rather than surface craft which sought to penetrate harbour defences after 1914, but this was barely anticipated in 1904.

mines. The Committee accepted that substitution could take place at the three main naval ports.

These relatively cautious steps were overtaken by political events. In September 1903 Prime Minister Balfour, chairman of the new Committee of Imperial Defence and a politician already persuaded on the merits of the submarine, replaced the unpopular Army reformer Brodrick by the distinctly navalist Hugh Arnold-Forster. Sir George Clarke was the highly politicised Secretary and with the arrival in October of the dynamic Admiral Sir John Fisher as First Sea Lord, the Committee of Imperial Defence was dominated by "Blue Water" strategists. Bent on saving half a million, mining in the naval ports was transferred to the Navy on the 2nd. December 1904 and immediately abolished. Army mine defences in the commercial ports were withdrawn the following March.

As the military members of the Army Council had warned, the savings from abolition were in fact only some £125,000; search-

lights were still required for gun defences and not diminished.

In the short final debate on mining it became impossible to stand against the "command of the sea" arguments of the Navy and the submarine had found powerful protagonists, but in any event the steady growth in Admiralty control, culminating in a total veto over the possibility of ever putting down a minefield in war time, had greatly diminished the perceived worth of submarine mines.

There were other currents powerfully influencing events. In the contest between Army and Navy for a role in home defence the Army steadily lost ground from the late 1880s to the navalist arguments promoted fulsomely in Parliament, the press and the service journals. Government pressure for savings bore down on both services but in the grand scheme of things, R.E. "Aquatics" (Arnold-Forster's derisory label) was an obvious target. The military, long distracted by a multitude of reform proposals, a major staff reorganization and undermined by the political machinations of its adversaries, found it impossible to sustain a case for the continuance of submarine mining. Somewhat ironically these were the years when at some stations minefields were laid within the day - defeating the criticisms so regularly paraded in previous years. And yet there were already hints that in the Corps all was not well. Seemingly amongst some young officers, quite apart from the tedium of fortress duty, submarine mining had become unattractive because it was perceived as a non-combatant arm. No doubt the excitement of pioneering a new weapon and a new force, which clearly sustained the pioneers, had evaporated by the turn of the century.

The Brennan torpedo, similarly of limited range, followed the Army's mines into oblivion within a couple of years but, not without some irony, 1904 brought another Russian war, this time in the far east, which brought the mine back to haunt the Navy. In 1914, though stretched in every direction, the Navy found itself having to lay and man controlled minefields in some British harbours – what good fortune that Col. Scott, late of the R.E.Tyne Volunteer force, was able to organize a Royal Marine Submarine Mining Service.

In its search for 100 per cent reliability the R.E. mine service, during a long period of peace, went down a road of increasing technical elaboration absorbing more and more personnel. This in the end became its Achilles heel – critics seizing on costs, complexity of materiel and training and the tying-up of skilled men in a force of, so it was said, doubtful value. At the moment of its greatest technical competence its operational limitations – conditions fixed many decades before in very different circumstances – made it acutely vulnerable in an era when a naval offensive strategy had re-established a dominant position and warships and naval tactics had changed out of all recognition.

Perhaps a few sappers mourned its passing but the early 20th Century brought new military and technological challenges particularly air attack which the Corps, with thirty odd years of experience in electricity and searchlights, unit organization and training, was well placed to meet. The Submarine Mining years had not been entirely wasted.

BIBLIOGRAPHICAL NOTE

A COMPREHENSIVE and accurate history of the service "The History of Submarine Mining in the British Army" (1910) was written at the request of the Royal Engineers Institution.by Lt.Col. W.Baker-Brown. This account draws on this book, references in the Corps Library and much material at the National Archives (Public Record Office) and British Library not available to Baker-Brown or considered too sensitive for publication.

Random Thoughts from a Retired Rare-thinker

BRIGADIER J H HOOPER OBE SBSTJ DL FCMI



John Hooper was commissioned into the Corps in 1951 and served a good deal of his early career in Airborne Forces, including service in the Canal Zone. He later commanded 25 Fd Sqn, was GSO 2 in HQRE 1(BR) Corps and then commanded 36 Engr Regt. He wrote the draw-down plan for the withdrawal of British forces from Singapore before becoming successively CRE 1st Armd Div and Col GS, 38 Gp RAF. He was then appointed Dep Comd, HQ Wales, but managed to extricate himself to command the British Military Mission to Saudia Arabia. After retirement, he was advisor to HRH Crown Prince Abdullah of Saudi and Chief Executive of an aviation company in the Isle of Man. He was then involved in demining in Cambodia, Mozambique and Somaliland for over ten years He has also been Chairman of Gwent Appeal of the ABF, President of Monmouthshire St John Ambulance, Vice President of Gwent Scouts, President of Monmouth Branch REA and SW Branch, Airborne Engineers Association and Deputy Lieutenant of Gwent.

In addition, for nine years (with HRH The Duke of Gloucester) John was the Joint Honorary Colonel of R Mon RE(M), the Senior Regiment of the Reserve Army.

I WAS just thinking the other day. A rarish occurrence I grant you but even I noticed this almost unique event. I thought I would pass on the product of such unusual cerebration. It might be worth something if only for its rarity value. It concerns education, vaguely, which for me really started in Sandhurst.

Barry Grammar School, when I first started there, had just scooped five of the seven State Scholarships awarded to Wales as the result of the latest Higher School Certificate examinations (A Levels to the younger generation) No one was holding his breath waiting for one of BGS's latest recruits, i.e. me, to emulate a fifth of this achievement in due course. However, BGS did teach me to pass examinations by regurgitating what little knowledge I had accumulated on to an examination paper in a manner calculated to hoodwink an overworked, under-paid and pressed-for-time examination paper marker. I had no idea of the value of the facts I had retained nor of the few observations I had remembered nor how they might be applied to further my progress through what later proved to be a moderately eventful life. However, I had been given a lot of very sensible advice by my father and had been conditioned to a reasonable degree of socially acceptable behaviour by a spinster aunt. Would that I had listened more carefully to them as it would have saved me much grief in the ensuing years.

I went to Sandhurst in a condition, as one who had spent many years on a Welsh hill farm, I might describe as "rough hill pasture ripe for improvement". I also went there possessed of a scholarship to read veterinary surgery which fortunately for me, as it turned out, could not be cashed until after National Service. National Service was such a good lark I "turned Regular" and ended up in Sandhurst which subjected my "rough hill pasture" to a severe ploughing and harrowing which was not what I had had in mind at all. The ploughing and harrowing went on with varying degrees of intensity for the rest of my military career. In Sandhurst I came to realize that any wealth or good I might accumulate would have to come from my own unaided efforts. I was not going to win the pools, be left any significant sum of money, save a wealthy aged person from certain death and be suitably rewarded nor did I know any immensely rich young ladies whom I might, in one of their weaker moments, persuade to marry me. I also realized that, although I was quite likely to finish any event in the great competition of "life in the Army" with a modest rosette, any thoughts of ever coming first or in to the serious money were, to say the least, optimistic if not bordering on lunacy. I had worked a few things out:

- Although I had a reasonably agile mind it was not good enough to achieve first place in anything without a lot of effort.
- I was unlikely to ever take anything seriously enough to make the required lot of effort
- The same applied to sport where I was destined to play some games at a reasonable level but never to reach the highest levels and to be, in the unforgettable words of an Australian rugger playing chum, a member of that very large contingent of "Hazbeens and Neverwazzas"
- The only way I was going to get anything worthwhile in life was to keep plugging away and to emulate another Antipodean chum whom I met later in life who declared "This problem is far too great for me so I'11 just keep chipping away at the base of the bastard until it falls over"

In this latter endeavor (chipping and plugging) I was to be sustained by the words of a President of the United States of America. Calvin Coolidge had said

"Nothing in this world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men with talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent. The slogan "Press on" has solved, and always

will solve, the problems of the human race" [Attributed to CC in the programme of a memorial service to him in 1933]

As you can imagine I seized on these words like a starving dog on a bone and took enormous heart from them. I was short on talent in most, if not all, departments. Genius had certainly not stopped on my doorstep not even for a second. My education was, to say the least, deficient, despite a few certificates acquired by low cunning and the minimum of remembered solid facts. However, what I could do was keep plugging away longer than many and I was prepared to "get stuck in" as they say. If Calvin was cool Theodore Roosevelt was top of the pops in my book. Let's hear it for Teddy, or indeed, from Teddy whose words were uttered some years before but stood the passage of time. They afforded me sustenance and comfort. He said in a speech to The Sorbonne on 23 April 1910

"Service is rendered......by the man who......is actually in the arena, whose face is marred by dust and sweat and blood; who strives valiantly; who errs, and comes short again and again, because there is no effort without error and shortcomings; but who does actually strive to do the deeds; who knows the great enthusiasms, the great devotions; who spends himself in a worthy cause; who at the best knows in the end the triumph of high achievement and who at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who know neither victory nor defeat"

I have never felt any great affinity with "those cold and timid souls" but the diametrically opposed souls have attracted me as iron filings to a magnet. So, if I have a creed, it is that perseverance and the energetic pursuit of a desired outcome will usually do the trick . My family motto is the Welsh phrase "Dal Ati" which roughly translated gives "Hang in there" This creed, ethic, ethos, attitude, call it what you will, of hanging in there certainly saved my life and that of three of my companions on one occasion. It also helps me solve *The Times* crosswords each day which often appear impossible on first reading but they usually give in if I keep pestering them for a few hours!

En passant, it's a pity that Calvin Coolidge could not flatten his critics Walter Lippmann and Dorothy Parker with some further comments of Roosevelt in the same Sorbonne speech. Parker apparently queried on hearing that Coolidge was dead "How do they know?" and Lippmann in "Man of Destiny" published in 1927 wrote of Coolidge "Nobody has ever worked harder at inactivity, with such force of character, with such unremitting attention to detail, with such conscientious devotion to task" (I can see you all making notes for future Confidential Reports) but Roosevelt at The Sorbonne went on to say "It is not the critic who counts; not the man who points out how the strong man stumbles, or where the doer of deeds could have done better. The credit belongs to the man who is actually in the arena" You can imagine how I hung on to this one for a bit of comfort after a rough day at the office. It would certainly have dished Lippmann and Parker.

But, if Sandhurst was the real beginning of my education,

the Army was the system which continued it. It encouraged me to "read, mark, learn and inwardly digest" (2nd in Advent collect if you're interested) and broadened my horizons which encouraged the development of an inquiring mind which became too keenly developed in some areas leading to battles with authority and to the detriment of my promotion prospects. Of the first twelve years in the Army I spent five and half years in full time education in addition to courses varying from a week to a month throughout those years on subjects as varied as parachuting, fire-fighting, catering, diving and fly catching. Yes, honestly, in Egypt run by the Coldstream Guards, well in their camp anyway.

Brilliant though the Army educational system might have been my real teachers were my soldiers and superior officers. Bitter experience also had a hand in it as I seemed to be in Roosvelt's arena fairly frequently where I learned several salutary lessons. My generation was the beneficiary of a real educational bonus in that we were but a few years removed from World War II. Hence my superiors were battle experienced officers and the SNCO's had rows of medal ribbons too. We were lucky to be taught by veterans of the North African desert, Burma, Italy and other campaigns and of battles such as D Day, Arnhem, the Rhine crossing and the like before we were tossed into Malaya, Korea, Egypt, Eritrea and numerous other hot spots around the globe to practise our trade. The system of giving us enough knowledge initially to fit us for command at the lowest level then sending us off to put it into practice before bringing us back to a desk to learn some more worked well. We were also fortunate to train in an era when training was hugely realistic and quite frightening at times with extensive use of live ammunition and explosives.

With hindsight some of the training I organized and supervised as a young troop commander was extremely risky and would get me into serious trouble were I to practise it today. It would quite possibly have got me into trouble then had my Squadron Commander been aware of half of what I, ably abetted and encouraged by my soldiers, was up to. My Guardian Angel earned his pay, qualification pay, special qualification pay, extra duty pay and every other form of pay you can think of. But what I can also say is that my troop was superbly confident of its ability to do whatever was asked of it and its members trusted one another completely. The real point is that I was able to train my soldiers without a host of petty rules and restrictions hampering my efforts to make it realistic.

The delegation of considerable authority and responsibility to a very low level resulting in great freedom of action for young officers might have been a peculiarity of Airborne Forces, but it might have been general at that time in the Army. I had the privilege of serving four tours in the parachute brigades before I was a substantive major and there learned to "Press on" in the biggest possible way. Old Calvin would have been proud of me. I know I had quite a job adjusting to my first non- airborne posting as a squadron commander but, again my luck held and I had a superb, clever and sympathetic CO. I have serious doubts as to whether I could survive in the Army of today's nannying and politically correct world, superb and sympathetic though my boss might be. Perhaps I am unduly influenced by two incidents which happened nearly a quarter of a century apart. As a 2Lt in 9 Sqn in Egypt I was given the task of building a 500 man camp: The usual concrete tent bases, wriggly tin ablution blocks, cookhouses and soak-aways and the ever popular DTL's of course. I set off with my compass and the plans and in due course the camp was built. One fine day during the building when the site looked just what it was, a building site, an extremely smart jeep, gleaming with fresh paint, flying colourful pennants on its radio aerial and with the words SENIOR MAJOR written in large letters and dazzlingly white paint across the lower part of its windscreen, pulled into the site. I made my way across to see who owned this wonderful machine.

It was no less than Charles Earle who about a year to eighteen months previously had been Adjutant at Sandhurst when I had been a cadet. I was again totally impressed by his smart presence as I had been at Sandhurst. Even the rounds in the slots on his pistol holster were polished to a dazzling sheen.

"Who's in charge here" he demanded after he had acknowledged my salute.

"I am Sir" I replied

"No, no, no who's in charge of building this camp" to which I again replied that I was.

This exchange went on a little longer until he finally accepted the situation. It was fairly clear that he was not impressed by the fact that 1st Battalion The Grenadier Guards was going to be accommodated in a camp built by a 2Lt but that was, apparently, the case. However, we parted friends. I think. Of course in the wonderful way of the Army it was not until at least a year later that we covered building camps in the JO curriculum but I knew the form alright by the time I built my next camp in Cyprus as a Captain troop commander again in 9 Sqn. For the Gunners, if you please, this time.

Time passed and I found myself CRE 1st Armd Div in Germany where my Div Comd told me that the Army Comd wanted a 50 man camp built for some R Sigs personnel somewhere on the Inner German Border. This I duly passed on to one of my regimental commanders (one who was later to become E in C by the way) and thought no more of it. Some weeks later my Div Comd asked me how the camp was progressing and I said I assumed it was going well as I had heard nothing to the contrary since the last routine regimental sitrep. He seemed a bit surprised that I was not totally au fait with the very latest details of such a task. I was surprised that he was surprised but it appeared that the Army Commander was also interested. "Alles klar" as we used to say. I headed for the nearest telephone.

"I'm sure its OK" Richard assured me "but I'll just check with the Sqn OC if you like" I liked. Of course all was well and the camp nearly finished but I never did visit the site although both the Div Comd and even the Army Comd did. Of course by this time we just about had young officers counting socks to satisfy some bean counter in MOD so perhaps it's not too surprising that a camp which probably cost more than a few socks got the Army Commander's interest. But an experience like that did make one wonder what the Army was coming to. God forbid that the Falklands, Gulf, Balkans and Iraq experiences should be repeated but it seemed to a well-retired chap like me that they came in time to restore responsibility and authority to where it needed to be.

I read with pride of the splendid achievements of the present members of the Corps. So something must still be right with the system despite the rules, restrictions, disruptions, pennypinching and short but highly frequent active service tours. I was pretty pleased that my grandson, a very energetic type and Army hockey player found Sandhurst a tough course and I hope my next grandson to go there will find the same despite his undoubted athleticism and academic ability. The Army must still be one of the best educational systems. It did me proud with two years in the Canadian Army Staff College and JSSC some time later even if it would probably throw me out nowadays ! It allowed me an enjoyable Army career and fitted me well for what came afterwards allowing me to enjoy just about every minute of life to date. I will be ever thankful to the man who decreed that one could not read veterinary surgery anywhere until one had done National Service. Well done that man !

Rear Based Infrastructure Support to Operations

LIEUTENANT COLONEL J F PELTON MBE BSC(ENG) MA CENG ACGI EURING MICE



Lieutenant Colonel John Pelton is currently commanding 62 Commander Royal Engineers (Works). The unit has just completed a year's support to all the various Balkans' operations culminating with the transfer of most of the infrastructure functions to an Infrastructure Support Provider contract. This article focuses on a particular aspect of 62's experience, rear basing, in order to pass on some of the principles and lessons learned to the widest possible audience.

In early 2002 MWF found itself supporting four concurrent STRE (Wks) operational commitments¹ with six teams; an unsustainable level of commitments and an implied average tour interval of ten weeks. This commitment pressure was eased in a number of ways, one of which involved reducing the Balkans support to a single STRE (Wks), releasing an STRE (Wks) from the commitments plot. This so called "rear based" team was to provide support on call from Chilwell. The concept has now been run for a year in the Balkans and the same approach is being proposed for Iraq. It is, therefore, an opportune moment to reflect on the Balkan experience to ensure that appropriate lessons are not lost. This article has been written with the CRE (Wks) in mind; it is hoped however that the principles and lessons may also be applicable to other RE units and sub-units.

WHAT IS REAR BASING?

THE concept grew out of a need to reduce the numbers of personnel deployed on operations. However, the requirement for capability remained, otherwise personnel could simply have been stood down from commitments. Rear Basing therefore is a holistic approach to the delivery of an engineering infrastructure capability to a specific operational task or theatre, involving an integrated approach by rear and forward based elements. It should allow the CO of the CRE (Wks) to balance his effort between his forward and rear based personnel so as to provide the required capability, and to achieve economy of effort in his commitment of personnel. It is implicit, therefore, that the CO is given the operational freedom to exercise his initiative in meeting requirements and moving personnel to and fro as required – that is, rear basing must be under-pinned by a mission command philosophy.

HOW DOES IT WORK?

In the Balkans, one STRE (Wks) was deployed forward under OPCOM CJO and under OPCON in-theatre commanders in Kosovo and Bosnia exercised through the SO1 J4 Infra. The HQ CRE (Wks) and the remaining STRE (Wks) formed the rear based components which were placed under TACOM CJO for the Balkans and under TACON the in-theatre commanders when forward deployed. The rear based elements were held at R3, that is ten days notice to move, for Balkans tasks and continued routine training and unit administration whilst rear based. The tasking of a rear based team broadly followed the pattern set by OTX2s. Theatre staffs identified a requirement, the CO CRE (Wks) carried out an IR³ before deploying an appropriate design team to carry out a DR⁴ and design. Every attempt was made to work with the nominated MCF⁵, or contractor, whilst developing the design and an MDA⁶ representative was deployed during construction.

DID IT WORK?

THE arrangement certainly reduced the level of commitments for STRE personnel but not by half as might be imagined due to the need for some personnel to deploy forward for extended periods. It did allow the CO to exercise command over the CRE (Wks) to a greater degree than previously possible, particularly once the command states had been established and it proved possible to deploy and recover personnel more easily. This allowed tasks to be carried out more efficiently in that only those required to deploy were involved and the design teams could be task organized to meet the requirement. The excellent communications available in the Balkans was a key factor in allow-

¹Bosnia, Kosovo, Sierra Leone and Afghanistan.

² Overseas Training Exercises.

³ Initial Reconnaissance.

⁴ Detailed Reconnaissance.

⁵ Military Construction Force.

⁶ Military Design Authority, i.e. the CRE (Wks).



Figure 1 – The heliops extension at the Banja Luka Metal Factory in Bosnia. The rear based design covered two new hangar bases and the adjacent taxiway to the left of the erected hangar in the above picture.

ing the CRE (Wks) to support design work from Chilwell. Telephones, secure and insecure, FAX and Intranet (ISIS⁷) were all available between the theatres and the rear based elements in Chilwell. The command arrangements and status between the forward and rear based elements did, therefore, create some difficulties aggravated by the blurring of the staff and command functions in the Balkan organizational structure. Overall, however the concept proved to be a qualified success and showed potential for development in the future.

LESSONS LEARNED

THE command arrangements worked in the Balkans but largely because of the pragmatic goodwill of those involved. It did not always end in the best solution; a particular problem being the natural tendency of the in-theatre staffs to hang onto forward deployed "OPCOM" elements for longer than was necessary. There was also a lack of integration of RE assets due to the separation of the infrastructure staffs and units into the J4 area. Both of these difficulties would have been avoided by applying the JFE⁸ concept placing all REs under one commander and clearly differentiating the staff (requirements) and command (delivery) responsibilities. The choice of JFE should be dictated by the weight of work; if more close support, then a divisional CRE or CO of a regiment; if more infrastructure, then Comd MWF or the CO of a CRE (Wks).

The need for access to good strategic communications cannot be over emphasized. It proved a vital means for the rear based elements to maintain theatre currency and the only mechanism by which draft designs, concept work, design information and completed design work could be quickly and accurately moved back and forth between Chilwell and Theatre. Without it the responsiveness and understanding of the rear based elements is diminished to the point where they become, in effect un-deployed, resulting in a tendency to forward deploy for longer periods as the design team re-orientated itself to theatre and then carried out more work forward.

The use of one STRE after another forward deployed from the same CRE (Wks) with the other covering rear based did not work well due principally to the long periods during which the 'rear based STRE (Wks) was unavailable. For example, the second Team to deploy is involved in predeployment training for up to three months before it deploys during which time it cannot easily be tasked to carry out a rear based design. Equally, the first Team to deploy would expect to take four weeks Post Operational Tour Leave plus any annual leave on its return from theatre. Therefore, for nearly five months, the rear based capability was limited to the CRE (Wks) Headquarters elements alone. In future the rear based elements must be considered to be committed as well. Applied to the Balkans this implies that either a roulement of the whole CRE (Wks) after six months is required, barring alternatives such as the mobilization of a TA STRE, in order to provide the appropriate mix of forward and rear based capability.

Despite the shortage of personnel, the rear based designs were subject to greater scrutiny and the potential existed to dip into a broader pool of advice and experience. The CO of the CRE (Wks) was also able to exercise technical command in using the Headquarters personnel to supervise the design

⁸ Joint Force Engineer.

⁷ The Land Command Integrated Staff Information System.

GROUND FLOOR

FIRST FLOOR



Figure 2 - The layout of a small office complex, a rear based design constructed by the MCF at Banja Luka.

work and was able to call on support from elsewhere within MWF. By being able to routinely deploy forward, the CRE (Wks) command team was also able to offer advice and technical assistance that might not otherwise have been available.

The notice to move timings were found to be generally realistic as it proved difficult to mobilize teams to theatre in less than ten days to the frequency of trooper and R&R flights. However, the IR teams need to be at a higher readiness to provide responsive support and also to allow the maximum time for the DR team to develop the design solutions. Holding an IR team from the HQ CRE (Wks) at R2, five days, with the remainder of the rear based elements at R3 would be more appropriate.

Finally there is a need for in-theatre support for the rear based elements when they deploy forward. In most cases they will require vehicles as well as office accommodation and access to communications. The Balkans headquarters were able to meet these requirements from centralized assets: where this is not the case, then the forward elements may need to be equipped with sufficient vehicles and office space to provide capacity for forward deployments.

CONCLUSION

THE Balkan experience of rear basing was a success and demonstrated the greater potential of the concept with the correct organizational structures, specifically the JFE concept, in place. The key lessons for the future are the need for communications and the acknowledgement and treatment of rear based units as committed. The key benefits are reduced commitment loads and greater scope for providing more efficient capability and better quality work. Whilst rear basing is not the answer to every situation, it can in the right circumstances, provide a valuable tool in providing capability whilst easing the pressure on people.

The Run Up to the Korean War

BRIGADIER J B WILKS CBE

Brigadier Wilks served in the Corps from 1952-86 and has been a frequent contributor to this Journal. He served The Northern Ireland Office 1986-94 and is now Kent SSAFA Chairman. He keeps himself busy in retirement.

THIS year on 27 July it was the 50th anniversary of the signing of the Armistice that brought to an end the Korean War, which had lasted just over three years. It is only an armistice, the Armistice Commission still sits and a Peace Treaty has not been negotiated after all these years.

Korea had been a country keeping little contact with the outside world, and placing considerable emphasis on self reliance. From 1259 the country was ruled by the Mongols, after that the Chosen Dynasty, which lasted until 1910. At the end of the 19th Century there was some conflict with China and Japan, in 1904 the Japanese moved a strong army into Korea and in 1910 annexed the country as a colony to be run for Japans benefit.

In the 1939-45 war USSR was not initially at war with Japan. However the United States were concerned at the high casualties that they had incurred in the Pacific and expected major casualties in any landing on Japan. At the Potsdam Conference in July 1945, the USA encouraged USSR to enter the war, and among the agreements made was one that Korea would be independent.

The timetable of the USSRs war is very short. On 9 August 1945 the USSR invaded Manchuria, then occupied by Japan, and advanced into Korea. The atomic bombs were dropped: on Hiroshima on 6 August, on Nagasaki on 9 August. The peace terms with Japan were set out on 11 August and VJ Day was 14 August. So the USSRs war lasted six days!

Although the USA had not intended to occupy Korea, on 10 August they decided to do so, and agreed in haste with USSR that Korea would be divided on the 38th Parallel. It was not until 8 September that the first US troops landed, the Russians had been there a month ahead, but had stopped at the agreed dividing line.

The arrival of the US forces was almost Gilbertian. When the convoy was 20 miles away from the port of Inchon, they were met by a small boat, whose occupants, immaculately dressed, presented themselves to the US general as the representatives of the Korean Government. The US advance party of 14 was surprised to find in Seoul, a city of horse drawn carts, with the occasional charcoal powered motor vehicle. They saw three Europeans in a shop, and hastened to greet them, only to find that they were part of a small Turkish community, who spoke no English. They met White Russians, refugees in Korea since 1920, who spoke to them in German. It was a time warp for the Americans.

There was one other major difficulty in that no Korean they met appeared to speak English, there was only one Korean speaker on the staff and his ability was insufficient to conduct negotiations. The stabilising influence that they had to rely on was the Japanese: Japanese colonial officials were confirmed in their posts, Japanese soldiers and police were responsible for law and order. Japanese was the principal language of communication. General MacArthur, ordered the removal of all Japanese, and in the next four months 70,000 Japanese colonial civil servants and 600,000 soldiers were sent back to Japan. This is an interesting figure as to the numbers required to run the country and control the population. The Americans misunderstood the hatred between the Koreans and their former masters. When the Japanese left, they were replaced, as agents of the American Military Government, by many who had been long standing collaborators, who were equally hated by their fellow countrymen. The police force had been 20,000 strong of which 12,000 were Japanese, when they went, the others were promoted, the police expanded, and it was from this force, armed by the USA, that the South Korean Army was formed.

Meanwhile there was jockeying for position between the embryo political parties, among which were some strong communist cells. There were some politicians who had been in exile for as much as 20 years, who did not have much of a following. Then there was the arrival from Chungking, of the self proclaimed Korean Provisional Government. The man whom the Americans favoured was Dr Syngman Rhee, then aged 70, who had been imprisoned in Korea, between 1899 and 1904 for political activities, he had gone to USA where he had remained for the next 35 years. There he had pushed the Korean cause, and by being absent had not fallen out with other aspiring politicians.

The Americans installed a military governor in October 1945, with an 11 man Korean Advisory Council. The military government continued until elections were held in 1948. Out of a population of 20 million in South Korea 95 per cent of the 7.8million registered voters went to the polls. On 14 August 1948, the third anniversary of VJ Day, the US flag was lowered over the Capitol in Seoul and the flag of the Korean Republic raised. It had taken three years to form a government, it's leader Syngman Rhee.

By June 1949, all US troops had been withdrawn, except for a 500 man Military Assistance Group, the USSR had withdrawn all their forces from North Korea. The United Nations Commission was still charged with preparing for the unification of the country, but its work was increasingly involved in monitoring hostilities between North and South.

The US policy in Korea was clumsy and ill conceived. They did not understand the country, and saw it, as they did with China and Vietnam, as a brick in the wall to contain the spread of Communism. The imposition of US political institutions and bureaucracy did not fit in with the Korean peoples way of life. The US backed off, whilst the Russians supplied North Korea with a large arsenal of tanks, artillery, and military aircraft. In the Summer of 1950 there were indicators that there would be an invasion from North Korea, there was continuous guerrilla warfare, as there was in Malaya. Communist threats appeared on the occupation boundaries of Europe, in Trieste, among the oilfields of the Middle East, in Greece, and Yugoslavia. Korea was well down the list, and in any case a long way away.

The Communist attack started on 25 June 1950, at 4am, it was Saturday afternoon in Washington, and achieved complete surprise. North Korea was able to deploy 135,000 men, in 10 divisions and an armoured brigade of Russian T34 tanks, with ample supporting artillery and 200 fighter and bomber aircraft. The South



Korea

Korean forces were 95,000 strong with one third deployed along the frontier with North Korea. They were under prepared, under trained, had only six days ammunition stock, and few spare parts.

It soon became clear that this was no border raid. In the ROK Army, many men were away on weekend leave, and in Washington on Saturday night they too had shut up shop for the weekend. Early on Sunday morning the US State Department met with the Korean ambassador, who asked for military aid. The US saw the attack as a major threat, and that it should be referred to the United Nations. The Security Council met on the Sunday afternoon. On 13 January 1950 the Soviet delegate had walked out of the Security Council in protest, that the Chinese seat should go to the Communist Chinese, he was still absent. So there was no veto, at 6pm a UN resolution was passed by 9-0 condemning the North Korean attack and calling for their forces to withdraw behind the 38th Parallel. From subsequent UN resolutions concerning conflict it is interesting to note that the resolution was not for a peacekeeping force, but came down on the side of one of the combatants.

The immediate orders from Washington were to evacuate all Americans from Korea, to send equipment and ammunition to the ROK Army and to deploy the US 7th Fleet to segregate the Korea Peninsula. On Tuesday 27 June a further resolution was passed by the Security Council, this time 7-1, calling on member nations to assist the Republic of Korea to repel the armed attack and to restore peace and security. It is of note that there were only 58 members of the UN at that time and 30 of them contributed forces in some form.

In London at the Tuesday Cabinet meeting the topics for discussion included; the French and German coal industries, white fish, grants for marginal hill land, and support for the UN in Korea. The Cabinet decision was to order the Far East Fleet to join the Americans in Korean waters. Where could the Army find units? The immediate result was to increase the period of National Service to two years, and to recall reservists. The Royal Marines raised 41 Independent Commando which was flown by BOAC to Japan, and after three weeks training they were committed to operations on the east coast of Korea. On 20 August 27 Brigade sailed from Hong Kong with two under strength battalions: 1 Bn Middlesex and 1Bn Argylls, they were joined at the end of September by 3 Bn Royal Australian Regiment, and so came into being 27 Commonwealth Brigade. The UN forces were under great pressure and forced back into a perimeter from about 50 miles the port of Pusan, things were very desperate and there was a good chance that they would be thrown into the sea.

General MacArthur the Supreme Commander, indicated in July that there should be an amphibious landing at Inchon. This landing was fraught with difficulty due to the tidal conditions, the limited harbour facilities, and the likely difficulties of maintaining the troops ashore. The landing went ahead on 15 September and a force of 70,000 men was soon ashore. It took until 25 September to advance the 18 miles to Seoul, as there were 20,000 men defending the city, who put up a strong resistance. A formal ceremony was held on 29 September to welcome

back the ROK government. MacArthur flew home from the ceremony convinced that the Korean War had been won. It was to go on another two years and 10 months. The Chinese entered the conflict passing off their Army as volunteers, the UN advanced almost to the border with China, were forced back, warfare after October 1951 became static almost on the 38th Parallel.

Peace talks started in Kaesong in July 1951 and continued at Panmunjon for the next two years. The sticking points were the demarcation line and the problems of repatriating 150,000 Chinese and North Korean prisoners. Finally on 27 July 1953 the Armistice was signed, this agreement separated the two countries with a demilitarised zone that is 150 miles long. It is only an Armistice, there is not a Peace Treaty, and the Armistice Commission still meets in Panmunjon.

South Korea has flourished and produced a modern economy, North Korea remains in a time warp, with large numbers of men under arms, a command economy, and relative poverty. The separation continues, and it does not seem that there is a likelihood of a move to reunification, 58 years after the end of WWII.

Memoirs

BRIGADIER P W A HOLDSWORTH Born 1 April 1923, died 28 October 2003, aged 80.



PETER Wesley Arthur Holdsworth was born in India. He was not from a military family, but did claim "remote" connections with the Corps. He came to the UK in 1930 to be cared for by his Aunt and was educated at Cheltenham College. He visited India in July 1939 but was unable to return to England due to the outbreak of war - which was just as well, as the ship he would have travelled on was sunk with no survivors. He thus continued his studies in India until 1941 when he joined the British Army, becoming an officer cadet in the Royal Engineers after only two days training! He attended the Bombay Sappers and Miners OCTU at Roorkee and was granted an emergency commission on 11 Nov 1941.

From 1942 to 1944 he was in 60 Field Company of The Madras Sappers and Miners in the 17th Indian Division (The Black Cats) fighting with them throughout the Burma campaign. He said of his time in Burma that he "walked through Burma building bridges, and then walked back, blowing them up!", with his main memory being the building of the Tiddim Road. He returned to the UK in 1944 to help train troops in jungle warfare. He attended the Supplementary Course at Chatham in 1947 after which he was appointed Adjutant of 52 (Lowland) Division (TA). In 1951 he was a Staff Captain at AG7 for a short period before moving to Camberley to attend the Staff College.

From 1952-55 he was GSO2 (MI (3)) on the Soviet Desk at the War Office and lectured to both the Staff College and NATO Staff College on Soviet matters. He then became OC of 6 Field Park Squadron in Tripoli and during the Suez crisis, organised the evacuation by air of the wives and families of five regiments back to the UK. Between 1957 and 1975, apart from attending the Joint Services Staff College, he held a wide range of appointments ranging from OC 26 Armoured Engineer Squadron through Chief Instructor (Tactics) RSME, and Commander 30 Engineer Brigade (V).

His time in command of 26 Armoured Engineer Squadron at Höhne was probably his most challenging. It was a very large unit; twice the size of an RAC Sabre Squadron. With its unique equipment, all basic and upgrading training was carried out in-house and meeting the demands and exercise commitments at all levels from the very lowest up to HQ 1(BR) Corps caused a continuing overstretch. With its high morale however, the squadron never failed and was held in high esteem at the highest levels. Peter realised the overstretch could not be maintained and it was through his lobbying the CCRE, CE BAOR and HQ EinC that the Independent Troop of 26 Sqn was established at Bovington, eventually evolving into the RE Wing of the D&M School. This proved to be the vital element in introducing Centurion hulls to the Corps and the eventual expansion of 26 Armoured Engineer Squadron into 32 Armoured Engineer Regiment. Peter was a self-confident, cheerful and jovial squadron commander who took a full part in Höhne's social life, ably supported by Doreen.

Peter always said that his time in the USA was the most enjoyable and rewarding of his career, visiting in that time about 40 states. He actually wore three hats, BLO to the US Corps of Engineers and BLO to the US Army Mobility Equipment Research and Development Center (MERDC) at Fort Belvoir. For his work with the latter, he was presented with a Department of the Army Certificate of Achievement. His third hat was his work at the Pentagon and the British Embassy. The work he did on promoting the Medium Girder Bridge made a lot of dollars for the UK and he was also instrumental in organising the evaluation and testing of the Ribbon Bridge by the British Army.

In 1976-77 he was posted to NATO HQ in Brussels where he was chairman of a large international team doing an organisational study of NATO HQ. He remembers his last confidential report was initiated by a 3-star German general, his first reporting officer was a 4-star British general and his second reporting officer was a 5-star British admiral!

Col John Osborne, past Hon Col of 48 Div Engrs who had been involved with Peter since 1957, said at his 80th birthday party that he felt that there was no one who had done more to promote strong links between the Regular Army and the Territorial Army, working with them as a Captain, Major, Lieutenant Colonel and finally as a Brigadier. Had he been a volunteer officer, his total service with the TA would have been more than enough to qualify him for the Territorial Decoration!

He made no claims to be good at sport, but despite this, did play occasionally for the Corps Hockey XI. In 1942, he had a trial for South India, being the only European on the field.

Since retiring from the Army, he has been Western Regional Organiser for the Army Benevolent Fund and Chairman and Treasurer of Warwickshire ABF Committee. He was also and active Parish Councillor at Kineton and Treasurer of the Village Hall Association where he was a leading force in raising funds for a new Hall. He was also Treasurer of the Kineton Local History Association and organised a hugely successful re-enactment of the Battle of Edgehill, which raised funds for both the ABF and The Village Hall.

Peter Holdsworth was a hard working officer who considered all problems as a challenge to be solved by the application of logic, and he took great pleasure in doing the thinking, planning and organising the solution. He was a good companion and generous host who enjoyed life. Brigadier Stanley Baldry and Colonel Geoffrey Jones particularly remember that his knowledge of wines was prodigious. When dining out with him, a splendid evening was assured if the waiter was asked to produce immediately a plate of oysters and wine list for Peter, whilst the rest of the party considered the menu!

In 1946 he married Doreen Sutton, by whom he had two daughters, Angela Pauline and Fiona Jayne, all of whom, together with four grandchildren, survive him.

DH STB CWB GPJ JO

LIEUTENANT COLONEL A D HUNTER DSO*

Born 9 September 1906, died 19 October 2003 aged 97.

ANTHONY Duncan Hunter was born at Swallowfield, Hants and educated at Wellington. When he left school he told his father he wanted to go to Cambridge. His father told him it was too expensive and the best way was to obtain a commission in the Royal Engineers and they would send him for nothing! This happened and he spent two years at Trinity Hall reading Mechanical Engineering. He did his training at RMA Woolwich and SME Chatham. His first posting was to the Rail Training Centre and then to Fort George. Whilst there, he and a local enthusiast constructed an 18 ft clinkerbuilt boat and formed a small sailing club which eventually became the Royal Findhorn Yacht Club. Hunter eventually took command of 9 Field Squadron in the 8th Armoured Division and took it to North Africa in time for the battle of El Alamein. He was awarded his first DSO as CRE of the 7th Armoured Division for the work done by his sappers over the 2000 mile advance, much of it supervised personally by himself. The citation was personally endorsed by General Montgomery. Later on, in Italy, he was awarded a bar to the DSO for personally supervising the construction of a Bailey Bridge under continual harassment from enemy fire – the first bridge across the River Volturno after the landings at Salerno. Maj General Erskine, the GOC, proclaimed it "Hunter's Bridge".

After the war, he was posted firstly to Singapore and then Palestine where he became CRE of the 6th Airborne Division. He was then recalled to the UK and took command of the Army Air Transport Development Centre at Brize Norton. After his retirement he and his wife started an apple farm in Herefordshire, but in 1966, they set off for Portugal and settled at Sintra. After his wife died, he returned to England to live with his daughter in Wiltshire.

Tony Hunter married his first wife, Mary Grant in 1932. The marriage was dissolved in 1947 and in December 1948 he married Priscilla Gurney. She died in 1999 and he is survived by Sarah, the daughter of his first marriage.

JEB

BRIGADIER J F M GREAR OBE

Born 18 September 1929, died 17 November 2003, aged 74.



JAMES (Jim) Francis Massey Grear was born in New Zealand. His father had served in The Royal Irish Fusiliers and The Machine Gun Corps from 1914-18 and The New Zealand Staff Corps from 1939-45; he thus had military connections, but not with the Corps. He was educated at Wanganui Collegiate School in New Zealand and was in Intake 4 at Sandhurst, being commissioned on 16 December 1949 with Caines' Batch. He finished Sandhurst as a cadet sergeant, and with his height was selected to be one of the adjutant's stick orderlies under the authority of Major Charles Earl DSO, Grenadier Guards and the legendary RSM Jack Lord.

He had a good and successful military career in the Royal Engineers and on the General Staff encompassing Hong Kong (twice), Germany (Twice), Canada, The Oman, England, Scotland, Wales and Northern Ireland. His first posting was as a troop commander with 56 Fd Sqn in Hong Kong from 1950-51, and he finished his career as Brigadier in command of 29 Engineer Brigade from 1981-84. He won the Fowke Medal as a member of No 27 junior Officers Course in 1952 and in 1985was elected a member of the Council of the Institution. He himself highlights his exchange posting as an instructor with the Canadian SME at Chiliwack from 1963-65 and his time from 1978-81 when he was Chief of Staff of The Sultan of Oman's Land Forces. He also said that "all his postings were fun with the possible exception of 2IC - the worst job in the Army", referring to his time with 32 Armd Engr Regt at Höhne. However the greatest impact he had on the Corps was when he was CRE in Northern Ireland from 1970-72. His period in command included Internment, the emergence of the provisional IRA, the breaching of the Londonderry barricades, the day of civil disobedience and many murders, atrocities and car bombs.

In addition to all these matters, he had responsibility for the building of the Maze Prison as well as the security of police stations and infantry positions, the closure of minor roads and tracks on the border, prevention of culvert bombs and searches for terrorist bombs. Jim Grear had a major role; he visited all and every task cajoling and encouraging the sappers with his charm, a smile, a laugh and when necessary a word of correction or caution, with a pint of beer to follow. One of his sergeant majors commented that you always knew where you stood with Jim – he knew what he wanted. During this period every field squadron from the UK and Germany passed through the Province. Deservedly he was appointed OBE for his efforts in Northern Ireland.

He retired as a Brigadier in 1984. He had intended a quiet retirement, but he was asked to stand in as the Chief Executive of the Royal National Institute for Deaf People for six months while they recruited someone full time for the post. He stayed in the job for over a year during which time he not only recruited his replacement, but also sorted out the office and the Panel of Trustees and recruited a full time Finance Director. He then volunteered to become a Trustee and later, in 1992, he became Chairman and stayed in that appointment for four years. His time spent at RNID transformed that organisation for the better.

Meanwhile he was co-opted onto the Salisbury Spire Appeal, and was the events organiser for six years. He became a councillor for West Tisbury and was also a churchwarden of St John The Baptist, Tisbury. On retiring from that job, he became Chairman of the Fabric Committee and played a major part in the reordering of St John's Church.

He was Chairman of the Tisbury Branch of the Royal British Legion until the day he died, Chairman of the Royal Engineers Association of Salisbury and President of the Burma Star Association of Salisbury and District. He was secretary of the Tisbury Sports Centre Committee and served on the committee of the VE/VJ Day commemorations in 1995. He was Chairman of the Tisbury Millennium Committee and bullied the Parish Council into refurbishing the War Memorial. He was always around to help; erecting stalls at the Fête, putting out chairs and tables, serving wine, cleaning up the War Memorial and talking to everyone he met.

He commented in his own profile "All this goes to show that life really begins when one retires – it has proved very difficult to find time to play golf!" – a statement that many will find difficult to believe. At sport, he considered himself to be a "mediocre all-rounder", but golf was his main sport. He was a stalwart and competitive member of the Royal Engineers Golf Society.

In 1953 he married Patricia Marguerite Gattey, known as Tricia, a Canadian by birth by whom he had three sons, Frank (now in New Zealand), Hugh (an ordained priest) and Peter and a daughter, Susan and a total of eleven grandchildren. He was taken too soon from his family and all his good works for Tisbury, for which he and Tricia worked so hard, as well as from his many friends in the Corps, especially his batch, 4 YO.

He was a gentle, kind man and a thoroughly professional soldier.

MAJOR K HIGTON MC Born 2 April 1919, died 8 December 2003 aged 84.



KEN Higton was brought up in Sheffield where he lived and worked until being called up in October 1939 and posted to the Railway Training Centre at Longmoor. He eventually rose to the rank of sergeant before being granted an Emergency Commission as a Second Lieutenant.

As a junior officer he served in Yorkshire with 19 Field Squadron, then part of 79 Armoured Division, but shortly after D-Day was drafted to Normandy as a reinforcement. He joined 756 Field Company in 49 (West Riding) Division (The Polar Bears), and served with them throughout the campaign in North West Europe in France, Belgium and Holland, first as Reconnaissance Officer and later as a Platoon Commander. His services in 756 Field Company are well described in "Our Part – The History of 756 Field Company from Formation to Victory in Europe".

Ken was awarded an immediate Military Cross for supervising his platoon under heavy mortar fire whilst filling in the large anti-tank ditch at Roosendaal in October 1944. The mortar fire was attracted by the noise of a large bulldozer that had to keep going in order to meet the deadline for the Churchill tanks, anti-tank guns and carriers of 49 (West Riding) Division to enter the town. The work involved demolishing a house, filling in the ditch and surfacing the road thus made. The bulldozer driver, who was wounded but carried on until the job was completed, was awarded the Military Medal.

After the war, Ken served in BAOR before being posted to the Middle East in 1947. He joined 23 Field Squadron, then at Nathanya in Palestine, as second-in-command, relieving the previous incumbent who had been wounded by a booby trap. He served with the squadron in Palestine, Cyrenaica and Tripolitania. He was very hard working, thorough and loyal, and liked and respected by officers and soldiers alike. Whilst in Tripolitania he was appointed second-in-command of 17 Field Squadron. He was later granted a regular commission, but in the RAOC.

Towards the end of his service, by now a major, he commanded the Ordnance Base Depot in Borneo at the time of Confrontation. He became very exhausted in this job, which may have brought about his illness. However he served on until his retirement but he became progressively weaker and had to be permanently hospitalised. He bore his suffering with unfailing courage, good humour and an unforgettable smile; a shining example to all who were privileged to know him. He remained in hospital for well over twenty years and was eventually moved to a care home in Sheffield where he died on 8 December 2003 at the age of 84. His devoted cousin and his wife, John and Sandra Elston, and all his friends mourn him.

REW

IN REPLY TO LT G P WEBB'S LETTER IN THE DECEMBER 2003 JOURNAL

From: Colonel (retd) D A Johnson

Sir, – Geoff Webb's letter in the December Journal brought back many happy memories of Nepal. I was DCRE Nepal in 1972 – 1974. When in Kathmandu we often ate at Boris's restaurant the "Yak and Yeti". Boris was reputed to have been in the Bolshoie Ballet and also had been chef to the king of Nepal. His borsh was certainly very good.

Another popular restaurant, especially for climbers, was the "Nook".

When in Kathmandu we stayed in an old rambling Rana Palace, the Shanker Hotel, which I believe, is still going strong. Kathmandu was always full of interesting characters from the hippies living in a haze of cannabis smoke, the climbers passing through and our many Nepalese friends.

One character was Mickey Weatherall an engineer who worked for ODA and was building a road to the tea plantations of Ilam in Eastern Nepal. I was his post box and contact in Dharan. We often visited him at his road head site high in the hills in his shiny silver Winbago caravan.

Nepal was certainly my favourite posting and we have great memories of our treks, riding elephants in the forrest and so much more. Yours sincerelly – Derek Johnson.

DIVINING (AGAIN!)

From: Major (retd) GEC Woollatt

Sir, – The correspondence on divining trickles on! Maybe I can contribute some more practical thoughts and reduce the mystique, which always seems to attach to the subject.

Firstly, rightly or wrongly, I take the word "divining" to be the generic term for a physical phenomena which can be measured, defined and explained within the scope of existing physical laws. I restrict the word "dowsing" to mean the location of underground water sources by arcane practices which vary with the charisma of the practitioner. (Sometimes known as 'witching' for water.). I have used the former regularly to locate underground utilities but have little experience and no understanding of the latter.

I start from the premise that divining is a natural function of electromagnetic forces acting on two linear conductors which are free to align themselves in response to the surrounding force fields. It has nothing whatsoever to do with the individual who is holding the rods. Everyone can do it. Surely we have all used a bent coat hanger to find coins hidden under the sitting room carpet at children's parties. Some unnecessarily sophisticated commercially manufactured divining rods even have insulated handles.

Surely we can all accept that it is reasonable to expect the rods to realign themselves when passing under 132 kV overhead transmission lines; the static field is even discernable by other bodily senses. Why should we deny the same phenomenon just because the cable is buried? If we move on to underground gas, oil and water pipes, there are certainly very

small currents generated by friction and often imposed currents for cathodic protection, at least in metallic pipelines. In the case of disused PVC, AC and concrete pipes the void creates an anomaly in the magnetic field, as does the presence of magnetic ore bodies, scrap iron and the coins under the sitting-room carpet.

Previous letters on the subject have referred to the delay in response, rendering the practice unsafe for mine detection! The lateral distance the object is located behind the heels of the diviner is a direct function of the depth and the size of the object. My experience indicates that the locus is always along a 45 deg line backwards and downwards from my heels; a shallow small pipeline giving the same delay parameter as a large pipe buried deeply down the same 45 deg line. There are two ways of resolving this complexity.

- a I usually know what I am searching for (i.e. an active 150 mm PVC pipeline) and can often assume it is buried around 750 mm deep.
- b By simply reversing and divining in the opposite direction the object will be located below a point halfway between the two "reaction" points.

Non-linear objects (the coins under the carpet again) can be located by divining twice, at right angles.

Divining is a natural science, not "black magic". Yours sincerely – Geoff Woollatt

WARTIME COMMUNICATIONS

From: Major T Le M Spring-Smyth

Sir, – I have just re-read Lt Webb's letter in the August 2002 *Journal* and thought I would relate my experiences with regard to communication in the jungle.

I was a platoon commander in the Sirmoor Field Company of 45 Independent Beach Group. We crossed the Irrawaddy at Sameikon and went to various other places before taking over rafting from IV Corps Engineers at Nyaungu.

All the while, like Lt Webb, I never had radio communication. We had 22 Sets in our Jeeps but never used them despite the OC being in favour of radio. His interest diminished however when he stopped on the road to call up the Pl Comds and someone took a pot-shot at him – they missed! We had small charging engines for the radio batteries, but I cannot imagine anyone starting them up near the river before a crossing.

After many adventures we started the long journey to Rangoon and the start of the Beach Group training for the proposed landings in Malaya – Operation *Zipper*. I do not recall the use of my 22 Set once during those interesting times. Yours Sincerely – Tom Spring-Smyth.

TEMPORARY GENTLEMEN

From: Captain A J Rayment

Sir, – Following the review of my book "*Temporary Gentlemen*" in the *Journal* and *Sapper*, I thought your readers would be interested in what happened post-publica-

tion. Major General Loftus-Tottenham, who commanded the 81st Division, Royal West African Frontier Force in Burma and who wrote the foreword for me, had been contacted by Dr Kwame N'Krumah, Prime Minister of The Gold Coast (now Ghana). Nkrumah wanted a film made of the West African contribution to the Burma Campaign and had offered the two of us £30,000 to be researchers and advisers for the film. I spent a year on the research and used Gen Loftus-Tottenham's war diary supplemented by work at the Imperial War Museum and interviews with European officers; (the whole of the 81st Division only had one black officer – not a sapper). I produced over 400,000 words and sent them to the General.

Two months later, we met up in a Park Lane Hotel to meet Lord Louis Mountbatten who said he was very interested in the film project. There cannot be many junior officers who have supped double whiskies with his Lordship – a wonderful experience and he paid! Lord Louis lent me some of his papers on the campaign which I used to expand my script. I then sent it on to General Loftus-Tottenham for him to deal with N'Krumah. He sent a reminder after a long silence and received a badly written reply from an African clerk – Dr Kwame N'Krumah was no longer available. Of course he wasn't – he had fled the country with millions of Gold Coast money!

What happened to my enormous manuscript I never knew. Lord Mountbatten was murdered and General Loftus-Tottenham also died and with him, my dream of film stardom!

I have many memories of my time at Chatham, one being the hours spent on jankers mucking out for the Mounted Troop and another sitting on a bench in the middle of the square using two brooms to learn how to row because I was such a lousy oarsman! Those were the days, I bet it is not like that today. Yours Sincerely – John Rayment.

Reviews

THE NATIONAL ARMY MUSEUM BOOK OF WELLINGTON'S ARMIES

BRITAIN'S CAMPAIGNS IN THE PENINSULA AND AT WATERLOO 1808-1815 BY ANDREW UFFINDELL ADVENTURES WITH THE CONNAUGHT RANGERS 1809–1814

WILLIAM GRATTAN (ED CHARLES OMAN)



Published by Pan Macmillan (Sidgwick & Jackson), 20 New Wharf Road, London, N1 9RR. Price £30.00 (hardback), 362pp, 58 illustrations, 16 maps. ISBN 0 283 07348 9

THE National Army Museum have been inspired to disinter their collection of original letters, diaries and journal extracts of over 100 participants in the Peninsular War and Waterloo and turn them into a book, *The National Army Museum Book of Wellington's Armies*, relating the story of the wars and the armies that participated in them. Even more inspired is their choice of author, the readable and admirably succinct Andrew Uffindell, much respected for two books on Waterloo (as co-author with the American historian Michael Corum) and several other publications of his own.

Most of the extracts from personal memoirs have never been published before. All are interesting for the colour they give to the overall story, particularly those of the private soldiers. Many give a new slant to events whose interpretation has been taken for granted and retold in ignorance of the better source. For example, new light is thrown on Wellington's decision to give battle at the Busaco position notwithstanding the clear likelihood of its eventual outflanking. New detail also emerges, from personal accounts, of the performance of individual regiments in some of the major battles.

The sapper interest is limited. There are only two Royal Engineer contributors. An extract from Captain John Birch's report on the suitability of Coruña as a port of embarkation reminds us of the awesome responsibilities that fell to the engineers of the day. But the most worthy of note is that of Captain John Oldfield from which much becomes clear about the pre-Waterloo work of the Engineers and Sappers and Miners, about how one company became sadly "mislaid" during the battle, about Wellington's relationship with his CRE and the story of the map, now on display in the Museum. While these stories are well-known, it is good to see them appearing in print in their proper context.



Published by Greenhill, Park House, 1 Russell Gardens, London NW11 9NN. Price £12.99 (paperback), 340pp. ISBN 1 85367 531 8

BECAUSE this book highlights only the accounts in the NAM collection, events that are not covered by any of these are sketched in by the author in the main text. Although this is achieved in a very readable and taut style, their significance is sometimes given less prominence than they deserve. And while the author's grasp of the overall strategic events is impressive, and the book thus becomes a handy summary of these aspects of the war, it is sad to see the Engineers again being unreasonably accused of serving Wellington badly with their advice on the sieges of Badajos.

In many ways the attitude of the subaltern William Grattan in his Adventures of the Connaught Rangers reflects the situation better. He thinks criticism of the Engineers on this occasion to have been unjust and enumerates three other reasons for the failure of the siege, not least that the officer commanding the first attack knew less about the situation than he should because the engineer had been killed at the onset. In another passage he writes admiringly of Colonel Fletcher's sang froid under fire.

Grattan's memoirs of the war, in which his battalion (1/88th) played such a distinguished part, are a familiar source to Peninsula War buffs but not readily available. One can not improve on the two reasons for admiring its merits put forward by the original editor, Sir Charles Oman: the graphic pictures he paints of the battles and his lively sense of humour. These accounts are full of life, perceptive and great fun to read. This facsimile reprint is most welcome. One's only gripe about the book is the lack of an index. Greenhill in common with other publishers fail to seize the opportunity these reprints offer for what is now almost indispensable in a new publication. Despite this, William Grattan's story is a well worthwhile addition to anyone's Peninsula library.

GWAN

THE MAN WHO NEVER WAS AND OPERATION HEARTBREAK

EWAN MONTAGUE AND DUFF COOPER



Published by Spellmount Publishers, The Old Rectory, Staplehurst, Kent. TN12 0AZ. Price £18.99. ISBN 1-86227-187-9

THE over-riding qualification for a Journal book reviewer is that it has to be someone who knows the subject – preferably inside out so that you the readers receive an informed opinion. We have had to break our own rule for this book since the basic story concerns something about which only a handful of people ever really knew anything, and where the main character was already dead before the story unfolded.

In the early hours of 30 April 1943, a corpse wearing the uniform of a Royal Marines officer was slipped into the sea off Huelva, Spain from the submarine HMS Seraph -Operation Mincemeat had begun. Attached to the body by a chain was a briefcase which contained some personal letters to senior commanders in North Africa from Sir Archibald Nye and Lord Louis Mountbatten, and other documents which detailed the plan for the imminent Allied invasion of Greece. There was of course no such plan, for Operation Mincemeat had but one purpose; to use the supposedly neutral Spanish government's affinity with the German High Command to blind the Axis powers to the Allies' true objective, the attack on southern Europe through Sicily. As anticipated, the Spanish showed the contents of the briefcase to the local Nazi agent before returning them to the British Consul. The corpse, identified as "Major William Martin RM", was buried with military honours in the cemetery at Huelva where he rests still, his grave looked after these sixty years by a local Anglo-Spanish woman.

Although an audacious and necessarily top secret operation, it was, like most of the best ideas, a simple enough plan and Lieutenant Commander Montagu tells the story well with plenty of detail. There was of course a lot of detail required – for instance where does one acquire a dead body? An easy task in wartime you would think, but think again. Also what of the hundreds of little things which together would convince a German intelligence officer that the corpse really was what he appeared to be; tailors bills, letter from his fiancee, pass to Combined Ops HQ etc. The whole story is well told; absolutely everything that went into the documents and thus into the briefcase had a reason for being there. Dates, even on theatre ticket stubs, were correct for pointing the way to the thought that the body had been floating in the sea for about six days. Not much detail about obtaining the body is given, but this is more to protect its identity. We are told the man died from pneumonia, but this helped the cover story, since the liquid in the lungs the disease causes could be mistaken for the seawater that would inevitably also be in them after an aircraft crash at sea. Once Martin was buried, the deception had to be maintained. His name was placed in the published casualty lists and this caused trouble of its own - pay and pensions for instance had never heard of him! The book ends with details recovered after the war from German intelligence files showing that Hitler had swallowed the story whole, thus saving countless Allied lives when the invasion of Sicily started. Even if you have read the book before (or indeed seen the 1950s film) it is still compelling and recommended reading.

Why then is "Operation *Heartbreak*" by Duff Cooper published with it? Even though the story was top secret, these things have a habit of getting out and the story of Operation *Mincemeat* was the talk of London's post-war high society. There is indeed a suggestion that it was Churchill himself who first told the tale in an after-dinner speech.

In 1950, Duff Cooper published "Operation *Heartbreak*" as a romantic novel. The basic story is of Willie Maryngton, (an orphan, thus no family) and cavalry officer who arrived in France a week after hostilities ended in 1918. Most of the book details his life in Egpyt and India with his regiment. He does not do well, and still a captain in the late 1930s, he leaves the army only to be called back at the outbreak of war. He gets left behind when the regiment goes to France, falls ill and dies of – you've guessed it – pneumonia. The Int boys happen to be looking for a suitable body at the time, so Willie Maryngton eventually goes to war.

In intelligence circles, the release of the book caused as much upset as if it had been the real story and in fact they tried to get it banned. Having failed they decided the only thing to do was to get the mastermind of the real operation, Lieutenant Commander Ewan Montagu OBE, to write a factual account which would overlap the fiction and complete the story. We are told Montagu agreed to do it, but viewed the task as an annoyance and disposed of it in a single weekend's non-stop writing.

The introduction to the volume is written by Duff Cooper's son, John Julius Norwich, who reveals some extra facts unavailable at the time and he includes the latest theories on the identity of The Man Who Never Was. Two plausible names are offered up, but as Ewan Montagu was faithful to the detail of the operation he had masterminded, so he was faithful to the promise he made to the relatives of the man whose body he used that he would never reveal his identity. In any case, I do not think we need to know – in common with many others, "Wiliam Martin" did his duty, the difference being he never knew it.

JEB

THE ROYAL AUSTRALIAN ENGINEERS 1945 TO 1972 Brigadier P J Greville, CBE BE

Published by The Corps Committee RAE, The School of Military Engineering, Moorebank, New South Wales 2170, Australia.

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THIS is the fourth volume of the history of the Royal Australian Engineers and a reader taking it down from the shelf will already have noticed that it is more than twice the size of its neighbour, Volume III. Although the latter covers the similar time span of 1919 to 1945, it is almost exclusively a history of the RAE in the Second World War; the operationally uneventful inter-war years fill only one short chapter. By contrast, the post-war years covered in Volume IV saw the Corps continuously involved in operations in many parts of East and South East Asia. For the Australian Army the aftermath of the war did not end until 1973 when the Whitlam Government decided to confine all defence activities to the mainland.

Australian Sappers took part in a great variety of operations in Japan, Korea, Malaya, Thailand and Sabah in support of Commonwealth and British formations. British officers who served with them still speak highly of their professionalism. Their largest operational task by far was of course in Vietnam where an Australian Task Force (ATF) was directly involved from 1965 to 1971, in brigade group strength for most of that time. After a shaky start due to lack of staff planning and consultation, effective units were built up to provide combat engineer support and to develop the base infrastructure. The close co-operation that was developed between engineers and infantry was crucial in a war in which mines and booby traps caused, at times, more than half of all casualties.

Much else was achieved. Development works and bomb disposal operations in Papua New Guinea and neighbouring islands continued throughout the period. A permanent School of Military Engineering was developed from the wartime School established at Casula in 1940. The RAE contributed much to the development of the Long Range Weapons Establishment at Woomera and the nuclear weapons ranges at Emu and Maralinga, which were provided for the main or sole use of the UK. Assistance to the civil community, consisting largely of bushfire fighting and flood relief, also contributed to the workload. One of the less usual tasks was the operation of open-cut coal mines during a strike. It was only a two-week operation but before it ended the Sappers had beaten the 24-hour production record; Greville records that during that time the greeting of "What's the score?" had nothing to do with cricket.

Not everything went perfectly of course. One of the strengths of this history is its frank treatment of learning (and relearning) from mistakes. The lessons come across with characteristic Australian clarity and the book would be worth reading for them alone. A major lesson was the reluctance of the Staff to involve engineers sufficiently early in operational planning. For example the mounting of the operation in Vietnam suffered from the lack of RAE representation in the initial reconnaissance. Two years later the error was repeated in a decision, taken without engineer advice, to lay a barrier

minefield in the ATF area. The subsequent story, well told here, provides a microcosm of the wider debates on the double-edged character and disastrous after-effects of anti-personnel minefields. Another lesson was the need for contingency plans to provide heavy equipment for the occasions when a highly mobile unit arrives in theatre to find itself too lightly equipped for some task which turns out to be larger than expected. A good engineer intelligence capability, which surprisingly was never provided in Vietnam, can help.

The Australian involvement in the Borneo Confrontation is also used as an example from which to draw lessons. Their task was to construct the Keningau-Sepulot road in Sabah, a major project by any standard. However the author is misled in his search for a military rationale for the project. It was initiated under the auspices of the Sabah PWD and had no direct connection to the British counter-insurgency operations. Its purpose was to enable border tribes to develop commerce within Sabah rather than cross the border into Kalimantan to sell their produce. It was essentially a political project with long-term strategic aims, and five successive RAE squadrons applied determined effort to it in demanding conditions.

Other lessons range all the way from the political to the technical. Although few of them will be new to experienced readers, most of us need reminding from time to time and here is a compendium of reminders.

Some of the operations involved only the Sappers. Their consequent advantage in field experience over other arms is given as one explanation of the disproportionate representation of RAE officers in senior ranks of the Defence Force. Most remarkably that representation has included, from World War II to the present, five Chiefs of the General Staff and two Chiefs of the Defence Force. Two of them, General John Baker (a recent CDF) and General Peter Gration (a former CGS and CDF), have contributed to this volume as authors of the Foreword and the Preface.

In a history of a relatively small Corps it is possible to record the names of unit and sub-unit leaders down to troop and sometimes even section level, and the author has taken full advantage. He has also provided an appendix containing potted biographies of the Officers, Warrant Officers and Senior NCOs mentioned in the text. Many junior ranks are there too, including memorable characters such as Corporals Rocky Maine and Blue Evans with whom this reviewer had the privilege of serving at Maralinga.

The volume is illustrated with clear maps and many photographs. It is also organized for easy reference to specialisations such as works services, movements and transportation, engineer stores, postal and fire services and bomb disposal. The one omission from an RE point of view is Survey which, in the Australian Army, is done by a separate Corps.

As a potential reader do not be daunted by the size of this volume; you will easily find chapters on the topics in which you are most interested. Having read those, dip into some of the rest and especially into the summaries of lessons learnt with which most chapters conclude. You are sure to find topics of interest to any military engineer. Phillip Greville has produced a wonderfully comprehensive work to complement Ronald McNicoll's first three volumes of the history of a distinguished sister Corps.

JPKC
TEMPORARY GENTLEMEN

BY JOHN RAYMENT



Published by: George Mann Publications, Easton, Winchester, Hants. SO21 1ES. Price: £9.50. ISBN No: 0-9541634-5-1

JOHN Rayment, the author of "Temporary Gentlemen" takes us with him to follow the actions and fortunes of a Field Company with the 81st West African Division in Burma; first on the Tiddim Road and then in the Kaladan Valley. The reader is introduced to the leading personalities - British officers and NCOs and Africans. They are a colourful group and their antics were at times quite extraordinary, so it is perhaps as well that they all have pseudonyms!

The Company was formed in the Gold Coast and moved to Nigeria for training. Already they seemed to have extraordinarily good fortune in the amount of alcohol they managed to acquire and in the number of bizarre practical jokes they are allowed to perpetrate. Slabs of guncotton placed under latrine seats would seem to most Sappers to be using unnecessary force!

DICTIONARY OF THE FIRST WORLD WAR BY STEPHEN POPE AND ELIZABETH-ANNE WHEAL



First Published 1995 by Macmillan Reference Books Re-published in Paperback 2003 by Pen & Sword Military Classics, 47 Church Street, Barnsley, S YORKS, S70 2AS. Price: £11.99. ISBN 0 85052 979 4

A7V PANZERKAMPFWAGEN; Aa, Battle of the; Abdullah Ibn Hussein; Abruzzi, Admiral Luigi, Duke of the; are the four entries on the first page of this chunky 550 page paperback book which is exactly what it says. If you don't know or understand the difference between a Pre-Dreadnought, a

In 1943 the Company embarked on the long journey by road, rail and sea to the Burma theatre via Bombay and Manipur Road. In these days of universal air travel, motorways and high-speed trains, we are apt to forget the impact this journey must have had on simple villagers from Ashanti, and indeed, several were casualties on the way. On arrival in Manipur, the Company was deployed to work maintaining a section of the Tiddim Road, one of the vital lines of communication in the forward area. When the Japanese advanced towards Imphal, the Company was moved by air to join its Division in the Kaladan Valley of The Arakan.

Rayment's story has no dates and unfortunately the few maps are insufficient to focus the reader on the Kaladan campaign itself. This is a pity, but the story is more about the people who made up this Sapper Company and the interplay between the British officers and NCOs and their West African soldiers. To those of us who were with the Indian Sappers and Miners Companies, the contrast is most interesting; this Company with its number of British NCOs and we with our VCOs.

The hero of Rayment's story is undoubtedly Fergie, the company commander who weld a somewhat unusual group of men into what was clearly an effective Sapper Company that made a great contribution to the challenging tasks that faced them.

The late Major General F J Loftus-Tottenham, who commanded the 81st West African Division in the Kaladan Valley, says in his foreword that the book is well worth reading. He congratulates the author on capturing the spirit of the times; a spirit of devotion to a cause and a complete disregard of selfish interest. He had one complaint with which I agree - the unit seems to have had more than its share of gin and whisky. Perhaps that explains why some of the rest of us in The Arakan went short! SEMG

Dreadnought and a Super-Dreadnought, or the connection between General Erich Ludendorf and the German Spring offensives in 1918 (called the Kaiserschlacht), or that there were actually three Battles of Ypres, then this is the reference book for you. You've all heard of the Luger pistol. Did you know that it was Swiss designed, had a nine-round magazine, was highly prized by Allied looters and 1.5 million were made during the war? Who were the Four-Minute Men and what was the link between Sir Roger Casement, Germany and the 1916 Easter Rising in Dublin? Even some of the more obscure topics are covered, such as the formation of Czechoslovakia and Yugoslavia, and there are lots of entries dealing with Austria.

The dictionary also contains an introduction, which puts the war and its key phases in context, a chronology of events and 25 pages of maps, which show the key campaigns and battles. There is a useful cross-reference method whereby topics mentioned in an entry can be accessed in their own right for more detail. Minus points are that it does not have an index, nor are there any pictures.

Dictionaries are often dry and uninteresting. Not so this volume, which is well worth keeping on your bedside table and diving into to widen your knowledge of that dreadful conflict. MC

1918 – THE LAST ACT By Barrie Pitt



First Published 1962 by Cassell & Co Ltd. Re-published in Paperback 2003 by Pen & Sword Military Classics, 47 Church Street, Barnsley, South Yorkshire, S70 2AS. Price £8.99 ISBN 0 85052 974 3

By the start of 1918, the Great War had lasted almost $3\frac{1}{2}$ years with little tangible result for the Allies. 1917 had been a year of frustration and false dawns. The British and Dominion success at Vimy and Messines was followed by the grotesque bloodletting in the swamps of the Ypres salient and culminated in the failure of the November attack at Cambrai. By the end of 1917 the stalemated military situation had still not been broken. Granted the Yanks were coming but by early 1918 they had only 4 divisions in France and training was taking too long for the overstretched Allies. The mood was sombre. The French had just about recovered from the mutinies which followed the failed Nivelle offensive in Champagne but were in no condition to undertake an offensive. The British were assimilating such reinforcements from the home base that Prime Minister Lloyd George would release but were also reorganising into 3 battalion brigades from the original 4 because of manpower shortages. Reinforcements arriving at the front were mostly callow youths and older men, all of whom were now conscripted, and returning wounded. The professionalism of the old 1914 regulars, the Old Contemptibles, and the optimism of the 1916 Kitchener volunteers, was gone. At home the war pervaded everyone's life - people wondered when it would ever end – some even thought that the war might drag on for ever.

The Central Powers, under Ludendorff, were more optimistic. Granted they had suffered greatly during 1917, but in all actions they had generally managed to inflict more casualties on the Allies than they suffered themselves. They had also gained a tremendous advantage by withdrawing to the Hindenburg line, giving up hundreds of square miles of territory to which they had laid waste. This shortened their line creating a greater density of divisions, thus increasing their combat power. The cessation of war on the Eastern Front, as a consequence of the 1917 Russian Revolution, also enabled them to redeploy displaced units to the west. Ludendorff knew that he had one last shot - he had to win the war quickly before the Americans arrived in such numbers that they tipped the military balance. There were also escalating problems at home with starvation caused by the Royal Navy's blockade, an increasing disillusionment with the war which, as in Britain, had taken over every facet of life, as well as the growth of communism.

Ludendorff concentrated some 3½ million men in 192 divisions on the Western Front with 60 of these facing the British southwards from Arras to la Fere. Facing this vast concentration of combat power were 21 British divisions with another 12 in reserve. Many of the German assault divisions were manned by committed, fit and well sustained infantrymen who had been especially trained in rapid infiltration tactics the Storm Troops. On 21 March 1918, supported by a hurricane of artillery fire, the Storm Troops fell on the British 5th Army commanded by General Gough. Their intent was to take Amiens and either push on to Paris, thus drawing the French to protect their capital, or turn North to cut off the British and Dominion forces from the Channel ports. The stalemate of the trenches would be overturned and the Allies defeated by a massive, mobile, infiltration. The climactic events of 1918, which would ultimately lead to defeat of the Central Powers, had commenced.

What happened between 21 March until November 1918 is admirably covered in Barrie Pitt's excellent book on the defining culmination of the Great War. Your reviewer has always contended that the events of 1918, and particularly the last 100 days, are the most fascinating of what was a horrific war and, at a tactical level, are possibly the finest feat of arms that the British and Dominion Armies have ever undertaken. First published in 1962, Pitt's book has an easy informal style and he alternates between encyclopaedic facts and narrative. His introduction starts with a battalion action by the Artists Rifles in the Flesquieres Salient at the end of December 1917. However, he concentrates mainly on the military aspects of the 1918 campaigns, dealing with the private soldier to the generals, but there are also digressions into the politics of the period.

Following the 21 March attack, the Allies bore a series of further attacks in quick succession. On 9 April, the Germans again fell upon the British line, this time the 1st and 2nd Armies in Flanders and the Lys. On 27 May they attacked the French and some under command British Divisions, which were recuperating from the 21 March offensive, on the Chemin des Dames, followed by further attacks on the Rivers Matz and Marne on 9 June and 15 July respectively against the French and Americans. But the Allied line, possibly against all odds, held. From March, the Allies had formed a unified command, with Foch declared as the Joint Commander, and their response could be coordinated across the British, French and Americans. The Germans had shot their bolt, US divisions were now flooding into Europe and, although the killing went on, the end state was in sight, although no-one realised it at that stage.

The Allied counter-attacks began with the French 10th Army, under Mangin and including Americans under command, counter-attacking at Soissons on 18 July. On 20 July, on Mangin's right, French 9th Army moved forward to conform. Then, on 30 July, the US 4th, 28th, 32nd and 42nd Divisions, acting as an American Army for the first time, attacked at Chateau-Thierry. Just over a week later, on 8 August, 4th British Army under Rawlinson, composed of the Australian, Canadian and British III Corps, supported by 600 tanks and a Cavalry Corps, with a coordinated deception plan and air support, attacked on a 15 miles front at Amiens. Surprise was complete and the Germans were pushed back with a maximum penetration of seven miles. Shewd general that he was, Ludendorff realised that the Germans were a busted flush and described 8 August as the "Black day of the German Army". This was the start of the last 100 days and, from this point, the Germans were beaten, although they continued to exert a heavy human toll on the attackers as they steadily withdrew against unremitting pressure, the Allies changing the point of main effort as enemy resistance hard-ened, thus keeping him off-balance.

Pitt's book is stirring stuff and puts all the events of 1918 into context. He has great admiration for the military prowess of the callow youths and their wartime officers and NCOs of the British Armies who, with their Dominion and American cousins and French allies, fought the Germans to a standstill. This was no walkover; the British suffered as many casualties in 1918 as in the whole of World War 2 with rates being as high as 6,000 per day in some of the set-pieces and the Americans having 122,000 deaths. There is no question that the Germans were beaten on the battlefield by the Allies during the 100 days, but the terms of the armistice allowed them to retire to Germany as formed units and retaining their weapons. This was undoubtedly a mistake, as were the terms of the Treaty of Versailles which allowed them a field army of 100,000 which was selected from the hardest and most committed Reichwehr soldiers and was the ideal cadre for the formation of the Wehrmacht.

The book ends with two vignettes of 1918. The Kaiser, now deposed, chops wood at his exile chateau in Holland whilst an Austrian corporal, guarding Russian prisoners in the southern German town of Traunstein, examines his inner demons and plots for the future. His name, of course, was Obergefreiter Adolf Hitler and we all know what happened next.

There are many books on 1918. This is a good one – read it! MDC

Explanation of Abbreviations Used in This Journal

AB	Airborne
ACE	Allied Command Europe
ACSA	Allied Cross Servicing Agreement
APOD	Airport of Departure
AOR	Area of Responsibility
ARRC	Allied Rapid Reaction Corps
ATRA	Army Training and Recruitment Agency
AWRE	Atomic Weapons Research Establishment
BD	
BGE	Battle Group Engineer
BPC	Battle Group Planning Course
CA	Concentration Area
CAD	Computer Aided Design
CPA	Coalition Provisional Authority
CR2	Challenger 2 Main Battle Tank
CK2	
CS	Chamical Warfara
DEC	Divisional Engineer Crown
DEG	Divisional Engineer Group
DFID	Department for International Development
DI	Deep Interrogation
DLO	Defence Logistics Organisation
DT1	Department for Trade and Industry
DTL	Deep Trench Latrine
DOB	Deployed Operating Base
DWR	Duke of Wellington's Regiment
ELG	Engineering Liaison Group
EPW	Enemy Prisoners of War
FARP	Forward Ammunition and Refuelling Point
FCO	Foreign and Commonwealth Office
FET	
FFR	
FP	Force Protection
FRS	Fellow of the Royal Society
GS	General Support
GSG	
HD	
НОС	
HRST	
ICSC	
IMAS	
IMATT	International Military Advisory Training Team
IRC	International Red Cross
ISD	In-service Date
IFLogC	Joint Force Logistic Component
IHF	Ioint Heliconter Force
IOA	Ioint Operational Area
KCMG	Knight Commander of the Order of Saint Michael and
	Saint George
LASS	I ead Air Support Squadron
	Land Component Concentration Area
LUCA	Land Component Concentration Area

LIS	Landmine Impact Survey
LLG	Logistic Liaison Group
LoC	Lines of Communication
MBT	
MCF	Military Construction Force
MCM	Manning and Career Management
MEF	
MITC	Mines Information Training Centre
MNB	
MRE	Mine Risk Education
NCHQ	
NGOs	Non-Governmental Organisations
NTM	
OCTU	Officer Cadet Training Unit
OFFP	Oil For Food Programme
OGDs	Other Government Departments
PE	Peace Establishment
PET	Professional Engineer Training
РЈНО	Permanent Joint Headquarters
PPP	
POE	Professionally Oualified Engineer
PWGF	Prisoner of War Guard Force
ODG	
RAH	Regulating Area Headquarters
RCA	Royal Canadian Artillery
RCAF	Royal Canadian Air Force
RCS	Royal College of Science
REYC	Royal Engineer Yacht Club
RSOM	Reception Staging and Onward Movement
RTCH	Rough Terrain Container Handling
RUC Ro	val Ulster Constabulary (Now The Police Service of
	Northern Ireland (PSNI)
SATCOM	Satellite Communications
SRA	Sovereign Base Area (Cynrus)
SDR	Strategic Defence Review
SOTR	Statement of Training Requirement
SPOD	Sea Port of Departure
STRE(RP)	Specialist Team RF (Bulk Petroleum)
TD	Tactical Doctrine
ТЕНЕ	Tactical Fuel Handling Equipment
TIE	Theatra Internment Englisty
	United Kingdom Air Contingent
	United Kingdom National Contingent Headquarters
UKSPC(C)	United Kingdom Support Comand (Cormony)
UNDDOEOD	United Nations, Protection Forma
UNEKOFUK	United States Marine Come
	Wor Eighting Establishment
WIE	Woonen of Most Destauration
WMD	Way Office Scientific Destruction
WUSD	war Office Selection Board

Please note: The above abbreviations are those which appear within articles published in this edition of the Journal and where authors may not have explained them. They are printed for the benefit of our many foreign and non-military readers. Appointment abbreviations (which appear on the first page) can generally be found in the back of The Royal Engineers List.