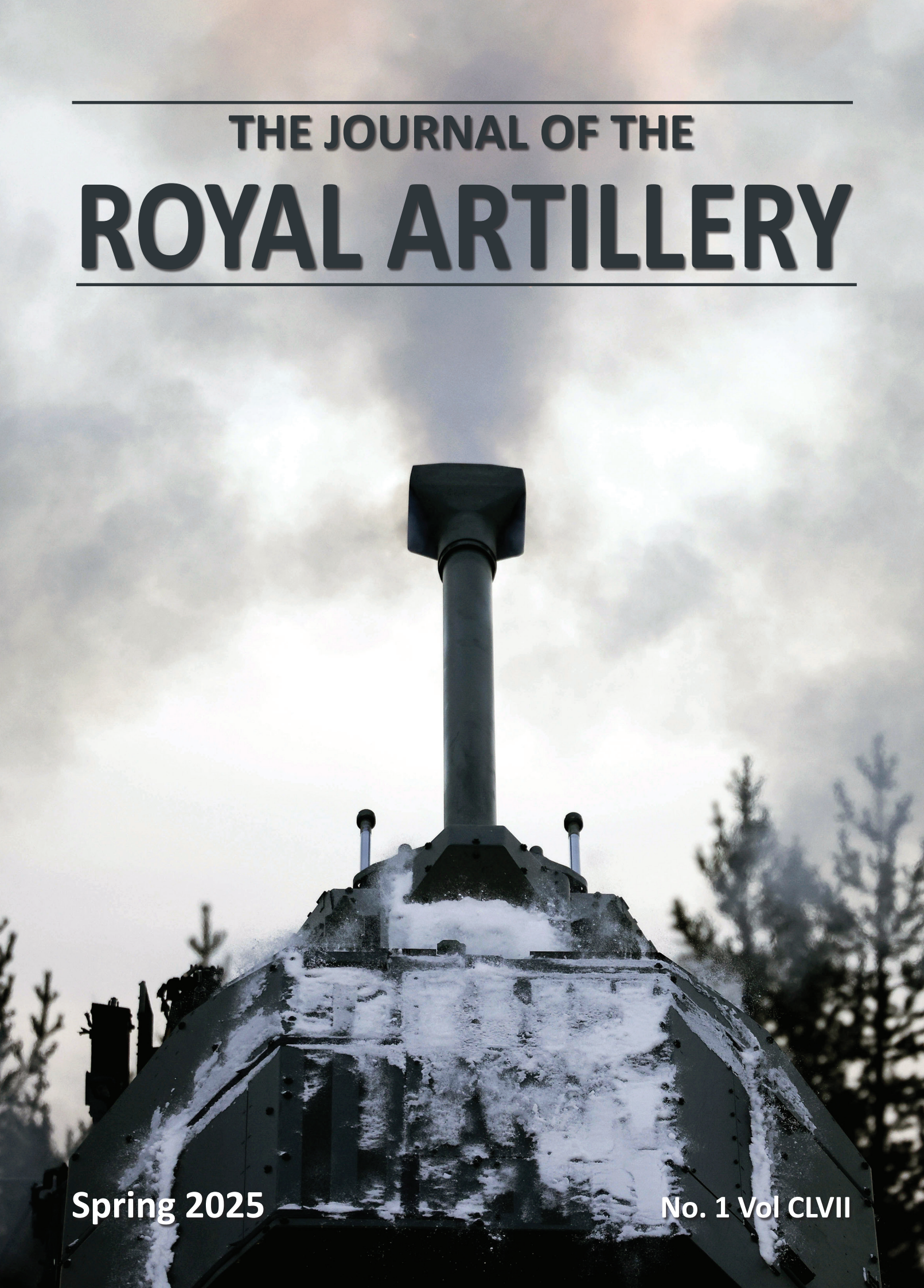
THE JOURNAL OF THE ROYAL ARTILLERY



Spring 2025 No. 1 Vol CLVII

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Remote Control Howitzer 155mm (RCH 155)

EDITORIAL

Welcome to this edition of the Journal of the Royal Artillery, now in its 167th year, and a very warm welcome to Colonel Paddy Farrell, the Regimental Colonel, who has come from commanding 7 Parachute Regiment RHA. We also extend a very warm welcome to Colonel Paul Bates, the Regimental Secretary and his standard wire haired dachshund 'Goose,' a very chilled four legged friend, named after a 'Top Gun' call sign. He continues the fine tradition of dogs in the Headquarters, all of whom are entertaining and brighten the day, even if occasionally there is a small accident. Furthermore, it is a fond farewell to Colonel Matthew Carter, the outgoing Regimental Secretary who has done such a great deal for the Royal Artillery Institution and the RA Charities. We wish him well in his retirement and good fortune with the mucking out in the fields.

The World would appear to be in a somewhat fragile place at present with conflicts in many parts, and exacerbated by natural disasters, such as the earthquake in Myanmar which has been devastating. The death toll is over 1600 and counting, and there are many injured or missing. The UK has been quick to respond along with others but a lot of help will be needed. The controlling military Junta is not making life easy for aid agencies, and foreign reporters are not allowed to report from within the country. The cost of recovery and rebuilding will be great, as it will be in the Middle East

World order is being challenged with autocratic leaders or dictators in one corner and democratic nations in the other. Opposing the former can have terminal consequences for individuals, and the leaders believe their own publicity. Russia claims to have been invaded by Ukraine, which is nonsensical to us but presumably is believed by many within its boundaries. They will only know what they have heard or seen on radio or television, controlled by the state.

Putin's invasion of Ukraine has backfired somewhat. He objected to an expansion of NATO but that, in effect, is what he has encouraged. Sweden and Finland are now members, and Finland has NATO's longest border (1,343 kms) with Russia. Russia now intends to increase the size of its military by 180,000 in the next 3 years to a total of almost 2.39 million. It has also recruited soldiers from North Korea. One hopes the escalation will not get out of hand but it underlines the need for Europe to maintain a strong defence and the latest reaction from the Bloc has been good. Countries can not thrive without growing economies but they can not do that if they are unable to protect themselves.

Another area that is weighing nations down is bureaucracy. The Civil Service is a first class organisation and allows Governments to change seamlessly, but is it currently too big? On a smaller scale, I had to reapply to be a Parish Councillor in my village. The form for completion ran to many pages and had to be printed before the input of details. The key information, which had to be countersigned and my signature witnessed, could have been shown on two sides of A4. An employee in the Council will have had to check all the pages. It keeps individuals employed but doesn't add to growth apart from the piles of paper.

Lieutenant General John Mead, Deputy Commander Allied Joint Force Command in Brunssum has written a very interesting and thought provoking article about NATO lacking dedicated joint fires command and control (C2). The key part is what has been, is and can be done about it.

Another senior Gunner, Brigadier Rob Alston, Chief Joint Fires and Influence at HQ Allied Rapid Reaction Corps (HQ ARRC) has submitted a piece on field artillery C2 in HQ ARRC which follows on nicely from the above. He has also, as Chairman of the Royal Artillery Heritage Committee, written an updated strategy for RA Heritage which is important to us all.

Heritage and History are different, and there are plenty of historical tales from near and far which follow in the pages of this edition. You will be taken from the Seige of Arcot in 1751, through the Turkish Intervention in Cyprus in 1974 to the next generation of 155mm Close Support Artillery capability.

REGIMENTAL EVENTS 2025/26

16-18 May	RA Assembly	Blackpool
8 June	Armed Forces Day	National
19 June	Hail & Farewell Dinner	Larkhill
5 July	RA Service of Remembrance	National Memorial
25 July	YOs Dining In	Larkhill
2 October	Alanbrooke Lunch	London
8 October	RAA NEC Meeting	Larkhill
16 October	RA Awards Dinner	Larkhill
25 October	Alamein Dinner	Larkhill
6 November	Field of Remembrance	Westminster Abbey
9 November	RA Ceremony of Remembrance	Hyde Park Corner
27 November	Sports Awards Dinner	Larkhill
5 December	YOs Dining In	Larkhill
7 December	St Barbara's Day	Larkhill Garrison Church
12 February	RA Gold Cup	Sandown
23-25 February	WO1s Convention	TBC
19 March	RA Boxing Finals	Larkhill

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Fires Asymmetry through the 'Six Outs'

By Lieutenant General John Mead CB OBE
Deputy Commander Allied Joint Force Command Brunssum

Lieutenant General John Mead was commissioned into the Royal Artillery in 1991, with regimental duty in 29 Commando Regiment, 3rd Regiment Royal Horse Artillery (3 RHA) and 7 Para RHA. Staff appointments included Joint Planning roles in the UK's Joint Forces HQ and in HQ ISAF Joint Command, as well as three postings to Army HQ in the Strategy and Personnel directorates. He attended Staff College in Australia in 2004. He commanded the 1st Artillery Brigade from 2017 and was Chief of Staff Allied Rapid Reaction Corps from August 2019, before assuming his appointment as DCOS Plans, Joint Forces Command Naples, in July 2021. Upon departing JFC Naples he was requisitioned to the UK Ministry of Defence to play a central role in developing the NATO Facing part of the Strategic Defence Review.
Lieutenant General Mead was selected for promotion, and the role of in January 2024, and assumed the position in December 2024. He has seen operational service in Bosnia, Kosovo, Iraq and Afghanistan, where he deployed five times, and recently led NATO's task force to evacuate NATO Afghan employees on Operation Allied Solace. He is married to Annabel and they have two sons and a daughter. A wildlife enthusiast in his spare time, he is also an Army level triathlete and currently preoccupied with Ironman races.

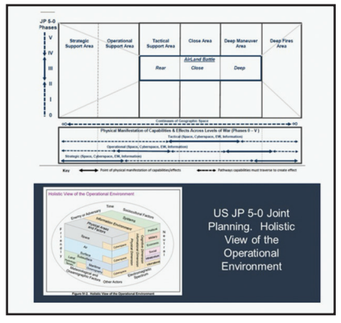
Once a Gunner, always a Gunner' is a much used saying in the Royal Artillery and one I've sought to reinforce in relation to the fires warfighting function while at ARRC, JFC Naples and now JFC Brunssum - as there's a gap. Organisationally, NATO lacks dedicated fires C2, such as the two wonderful US 2* Fires Commands in Europe. It would also appear most of the UK's senior Gunners are in NATO, which I'm beginning to think is deliberate! Therefore, part by design, but mostly by accident, I found myself chairing Exercise STEADFAST BLUEPRINT 2024, an Allied Command Operations (ACO) wide gathering to address the fires opportunities and risks presented by NATO's Regional Plans. As a result of our work, COS SHAPE reissued the NATO Joint Fires Roadmap to accelerate interoperability, Joint Battlespace Management (JBM) came into sharp focus and our targeting enterprise took a bound forward. Fires and JBM thinking were further advanced through the Rehearsal of Concept (ROC) drill we presented to SACEUR in March 2024 and subsequently in SHAPE's 'Echeloning the Fight' direction. Yet, there remains a great deal to do and I will use the 'six outs' from NATO doctrine to frame this thinkpiece on how Joint fires provides the Alliance with an asymmetric advantage, a headache in terms of scalability, interoperability and adaptability (fighting the right fight). Fires is also an arena of marked opportunity for UK leadership and 'NATO First' win-wins.

OUT-THINK: 'The Alliance must anticipate threats and understand the strategic environment better than potential adversaries'.

Out-thinking is not something NATO has always been accused of, indeed, 'Brain-Dead' was the term applied by President Macron to NATO in 2019. It will be for historians to judge the period from the 2014 invasion of Ukraine to the full-scale invasion in 2022, but the change in NATO feels more like revolution than evolution over the last three years. We have a clear strategy under the Concept Deterrence and Defence of the Euro-Atlantic Area (DDA), with a supporting Family of Plans that cement collective defence into how we design, train, equip and sustain the force. Planning is indeed everything where out-thinking is concerned, including the detailed fire plans at every echelon now under development. Those defensive fire plans matter greatly as we get into the more detailed challenges of synchronisation and resourcing. Nations will play a crucial role in their refinement in the coming year; British Army thinking and experimentation should be seen as a real strength.

From a fires perspective NATO has also gone back to the drawing board to sort out its doctrine. Joint effects (the change required), joint fires (combining fires from a number of components and a warfighting function) and joint targeting (the underpinning process) are now better embedded in our structures and thinking. We must now take this further and drive for battle drills as the acme of skill. While this doesn't sound terribly interesting, it is vital work where 32 Alliance countries are concerned, most of whom are operating in their second language. Given the centrality of UK's Defence Futures organisation to NATO doctrine and a number of domain centres of excellence in Britain, I do wonder if we could do more yet to lead in fires thinking. Could we develop some kind of a federated NATO Fires Centre of Excellence, and take on more joint fires training? I think so, and we need to better align the numerous fires conferences now conducted in the UK to exploit an impressive community of interest – very much including that within industry.

JBM[1] is also firmly lodged in Allied Operational Doctrine (AJP-3) although I would add I think we lost something when the specific JBM doctrine (JDP 3-70) was subsumed; especially the important principles[2] of 'what good looks like'. Deep battle is in sharp focus within SHAPE's echeloning the fight direction. US thinking in this area again warrants close attention with the operating environment framed under Joint Publication 5-0: Joint Planning shown below being of note.



We need to think of deep areas in the thousands of kms not hundreds if we are to genuinely deliver asymmetric advantages and ensure an unfair fight in the close. The implications for data, the exploitation of Artificial Intelligence (AI) and indeed how our own forces disperse and survive are profound. We must adapt to incorporate the lessons from Russia's Strategic Operations for the Destruction of Critically Important Targets (SODCIT), but equally the significance of recce-strike and the exploitation of the Electro Magnetic Spectrum at all echelons.

Stronger collective defence foundations, with a greater focus on deep battle, has also furthered deterrence thinking to better understand Russia's calculus, decision making and 'what deters' (Chatham House's excellent reference)[3]. Allied Command Transformation's (ACT) 'Four Square' deterrence thinking is significant, focussing on strategy, understanding the adversary, nuclear-conventional coherence and coordination across all instruments of power. Links to Think Tanks are stronger (albeit still a bit ad hoc) and a far more responsive NATO lessons process has been developed. RUSI's[4] complementary work on fires lessons, including regular first hand briefs to NATO forums from those such as Dr Jack Watling, have been highly impactful. Ukraine has highlighted the significance of modern strike capabilities, but also, their limitations in delivering decisive military advantage when capabilities are relatively evenly matched and air superiority is not achieved[5]. This is not the 'symmetric' position NATO aims to achieve with fires advantage, although the same report also notes the disproportionate impact such capabilities have on the ability to deter[6], important considerations for future Forward Land Force (FLF) laydown. For the Joint Force Commands in NATO, 2025 is very much about enhancing our deterrent effects. Expect to see more muscular, yet thoughtful direction based on firmer peacetime C2 of domains and an appetite from Nations to be coordinated to an ever greater degree in order to unify efforts and amplify deterrent effects.

OUT-EXCEL: 'The future Alliance must strive for excellence and agility, underpinned by NATO's unique military ethos, culture and diversity and the will to take the initiative and win over any potential adversary under any circumstances.'

The ability to out excel adversaries speaks to NATO's ability to harness innovation, technological superiority and the defence industrial base. It's also about how we train, our people and leadership. We need to be more adventurous in our concept development and take more risks as, for too long, experimentation was seen as Allied Command Transformation (ACT) business and not part of ACO's purview. This is changing and the UK plays an important role in this competitive arena. In 2019, for example, ARRC led the way for the Alliance in experimenting with, and then fielding, a Joint Air Ground Integration Cell (JAGIC) as part of warfighting readiness (the origins lie within US Divisions). The JAGIC initiative is now viewed as best practice and is being copied across the NATO Force Structure. AI, and its use on Operation BALTIC SENTRY to deter threats against

1. 'Battlespace management combines and integrates the elements of a joint force to accomplish the commander's intent and mission; it is thus a key enabler to the success of joint operations. AJP-3.
2. Universal application, boundaries and seams, coordination and control. Collaboration, context specific, agility.
3. Giles K, What deters Russia Chatham House 23 Sep 21 What deters Russia - Smart Thinking
4. Watling and Reynolds Tactical Developments During the Third Year of the Russo-Ukranian War RUSI Feb 2025 and Kausal and Suess A Net Assessment of Russian and Allied Capabilities in a Modern Strike Campaign, RUSI 2025.
5. Kausal and Suess A Net Assessment of Russian and Allied Capabilities in a Modern Strike Campaign, RUSI 2025.
6. Ibid.

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Critical Undersea Infrastructure, also highlights a further example of where the UK is supporting NATO and vice-versa.

NATO's ability to out-excel adversaries is further complemented by the Defence Innovation Accelerator for the North Atlantic (DIANA) established in 2022. Designed to do what it says on the tin, accelerate innovation, DIANA harnesses the NATO innovation network and strategic business partners from the commercial and defence markets to drive disruptive thinking and change. DIANA provides a blueprint for emerging and disruptive technology innovators to navigate the defence and security sector across NATO nations, while actively supporting the civilian commercial success of programme participants. DIANA and ACT were recently part of JFC Brunssum's WIDE initiative (Warfighting Innovation Demonstration and Experimentation); a day of targeted industry integration where we sought to further align experimentation with readiness.

To out-excel in fires NATO must similarly continue the warfare development of capability in conjunction with the Nations, with unity of effort achieved through ACT's portfolio. A separate subject in its own right, a few notable programmes of note at the unclassified level include:

Alliance Future Surveillance and Control – Enhanced Tactical Connectivity Programme. A project to broaden areas of connectivity through an approach aligned to NATO tactical data links (TDL) strategy. This seeks to close gaps through a focused federated approach, especially to NATO TDLs inside SACEUR's AOR. Furthermore, this programme will provide the ability to relay space-based and near space-based surveillance data and communications to entities at the tactical level.

Advanced, Rapid, Targeting and Effects Mission Information System Programme (ARTEMIS). This Next Generation Joint Targeting System (NGJTS) seeks to enhance, expand and improve federated Target Material Production across the Alliance, in order to enhance readiness and the integration of full spectrum targeting capabilities. ARTEMIS (formerly NGJTS) is part of a wider Joint Effects Capability Portfolio.

So, the opportunities for the fires community are significant, not least in developing advanced sensor-to-shooter networks or 'kill-webs', but also in influencing the development of supporting technologies. The significance of ACT, given the prioritisation it has now taken for warfare development, experimentation and shortening lessons loops, must remain a high priority in terms of the talented people we send there.

OUT-FIGHT: 'The future Alliance must be able to decisively operate across domains, in concert with other instruments of power and actors and simultaneously conduct shaping, contesting and fighting activities.'

NATO seeks to outfight Russia at the operational level, through the manoeuvrist approach, mission command and at being far, far better at unifying efforts across all domains. During Russia's 2021 invasion of Ukraine, Russia failed to align its air and artillery capabilities with ground movement. The reliance on poorly coordinated, attritional warfare was also the result of slow logistics and a rigid command structure. And yet, Russia is learning in contact, has battle hardened commanders and is exploiting new forms of the recce-strike complex. NATO, meanwhile, has talked a lot about multi-domain operations (MDO), but is now walking the walk through training and the whole cultural shift of making HQs, long used to stabilisation, into genuine warfighting C2 nodes. Collective training changes to enhance free play, 24/7 operations, exploitation of sophisticated targeting data sets, have combined with dramatic increases in fires related courses at NATO School Oberammergau, highlighting the start of real training transformation. However, exercising the execution of live fires isn't something we do enough of in NATO, save the evermore important US led Exercise DYNAMIC FRONT. Exercising live firing as part of combined arms manoeuvre at formation level is now fading into memory for perhaps most of the British Army; operations should not be the place to rediscover such prowess, or the understanding and experiences only live firing can deliver.

Agility at targeting is also a vital metric in our ability to 'out-fight'. 'It will all be combat engagements' type commentary misses the true impact of targeted fires early in a campaign (winning the firefight), as well as a context point about contemporary and future warfare. Targeting (capital T) as a process gives decision makers, military and civilian, choices and the ability to manage risk, including, to the extent behaviours can be second guessed, an ability to escalate to convey intent and capability, seeking to compel de-escalation. Improving targeting also makes the Alliance more 'targeted' (lower case), highlighting where we must concentrate force and focus scarce ISR (Intelligence, Surveillance and Reconnaissance) and Processing Exploitation and Dissemination (PED) resources. Finally, targeting underpins Alliance legitimacy and the necessity of operating within the Laws of Armed Conflict. With significant engagements and threats likely to emanate from towns and cities, this aspect warrants ever more focus. Urban warfare, to my mind at least, still feels underdone in our thinking and training. There is also a challenge of scaling up target development, which is both urgent and important.

Regional Plans have driven change across the warfighting functions, particularly how we develop Fire Plans to target critical capabilities and unlock centres of gravity. The implementation of the Joint All Domain Operations Centres (JADOC) within the JFCs has been a significant accelerant to such integration. Soon the JADOC will be equipped with MAVEN, a platform that combines massive scale data integration within an AI ready environment to improve and expedite decision making across echelons; a profound opportunity in how we exploit data to achieve information superiority. However, the majority of fires will be delivered by the tactical formations below the JFCs and Component Commands, hence the ongoing 'Org DLOD' work to better structure our fires and targeting outputs, which is a key component of SACEUR's Strategic Warfighting HQ initiative. How nations plug into such structures and, indeed, the extent to which nations structure for fires is a separate, but important discussion.

OUT-PARTNER: 'The future Alliance must be able to foster and exploit mutually supportive and habitual relationships and partnership opportunities'.

Partnerships and alliances are critical force multipliers in modern military operations. NATO excels at building, maintaining and leveraging strong partnerships both within its alliance and with external nations. In contrast, Russia had historically struggled with long term, sustainable military partnerships due to distrust, coercive diplomacy and weak logistical integration with its allies. The pacing technological threat of China and tech transfer is clearly one to watch though, as is the growing axis of ammunition and drone supply from North Korea and Iran. NATO must out-compete Russia in partnerships, and fires and targeting has a part to play given the interest we receive from partner nations and the wider influence it brings. NATO is not delivering fires and targeting mobile training teams at the operational level yet, but the NATO school delivers a number of targeting courses (Joint Targeting, Target Development, Collateral Damage Assessment, Battle Damage Assessment and multiple ISR courses) throughout the year, with spaces made available to key global partners such as New Zealand, Australia, Switzerland, Austria and Ireland. The training and integration of joint fires should be seen as a growth area as partnership focused teams grow under NATO's 2030 initiative.

OUT-PACE: 'The future Alliance must be able to recognize risks, seize opportunities, decide and act faster than potential adversaries'.

NATO's ability to out-pace Russia in times of crisis and conflict will first be determined by the extent to which we 'Set the Theatre', a combination of indicators and warnings, authorities, capabilities and posture. The implications for fires are significant. Recent developments in Estonia for example, and the lethality experimentation under Project ASGARD, shows how British Army fires thinking and capabilities can be linked to developing a better posture for NATO's Forward Land Forces (FLF). In terms of capabilities, Integrated Air and Missile Defence also remains a particular focus not only for what to position, but what capabilities nations are being asked to buy. Under LANDCOM, FLF are unrecognisable from even three years ago and fires are far better integrated across echelons, with more to follow in truly joining up the fires network.

SACEUR's authorities are linked into a Modernised Alert and Response System (MARS) to match I&W to response options across domains and across Alliance countries. For fires, assuring the Laws of Armed Conflict while planning and executing massed fires is a particular challenge for an Alliance where legitimacy is fundamental to cohesion. Technology, a developed targeting process and the layering of big data across our defended areas of interest all support such actions for an Alliance that is defensive by design. Minimizing collateral damage to underpin proportionality reinforces NATO legitimacy and sets us apart from potential adversaries. There is a great deal of thinking going on in this arena, harnessing Alliance strengths in data and tech, but we must never feel comfortable, especially noting the challenges in the urban environment.

OUT-LAST: 'The future Alliance must be able to think, plan, operate and adapt with a long-term perspective in mind to be able to endure as long as it takes through strategic competition and any conflict situation'.

The ability to sustain military operations over extended periods is a defining factor in modern warfare. Short wars are an illusion and the ability to out-last is a key component of deterrence. While Russia has demonstrated resilience in prolonged conflicts, NATO outlasts Russia at the operational level through robust logistics, superior defence industrial capacity, coalition warfare, economic endurance and adaptability in military strategy. That's the narrative point anyway, but Russia will produce some 4.5 million 155 shells this year (around 12,320 per day)[7], compared to a European production line nowhere near that figure; a truly sobering thought. With artillery remaining the main killer on battlefields, the *'quantity has a quality all of its own*[8]*'* adage is also relevant when assessing the UK's artillery arsenal. Our recapitalisation after Ukraine donations is of profound significance to the Army, but the story was not great long before then. The devastating effects of cluster munitions is also a policy constraint for many nations in NATO, one where technological solutions must be a high priority given operational lessons and recent British Army experience on Exercise WARFIGHTER. Lithuania's recent withdrawal from the Convention on Cluster Munitions highlights the necessity for greater urgency in this area.

There are other hard lessons from Ukraine, including in what we have supplied and the costs for not adhering to Standard NATO Agreements (STANAGs) adequately. SACT (Supreme Allied Commander Transformation), in consultation with nations, has the bit between the teeth here, but bureaucracy and risk aversion are perhaps even larger inhibiters to, for example, ammunition interoperability. A case in point is 155mm ammunition, which most NATO nations produce and, for multiple reasons, Ukraine has found it hard to use in different NATO guns. This then generates further self-imposed challenges to congested sustainment networks. The fielding of equipment, all at NATO standard, is a similar national inhibitor to developing mass quickly. The length of time we spend certifying new equipment, even though it has often been in service in NATO countries elsewhere for decades is beyond me. Surely, as with NATO Air pilot training or JTACs, we can come up with a certification system where nations assure common certification solutions? Firing artillery ammunition from other Nation's guns used to be common practice, and should be so again. The issue is deeper, but fixable.

What are the implications for the UK?

Hopefully the '6 Outs' provide some stimulus for how the UK fires community across all services could accelerate readiness and 'NATO First'. The opportunity risk is significant. In developing joint fires, beyond a truly mighty NATO Air component, we will greatly enhance deterrence effects. The '6 outs' support winning the deterrence fight, in clearly communicating our credibility and capability. All of NATO's warfighting functions are changing at pace in denying Russia advantages in geography, domain and readiness. Fires must be our asymmetric edge.

This is only a thinkpiece, but my summary thoughts for UK opportunities would include:

Lead Interoperability thoughts and deeds. Assume the lead nation role in driving forward the NATO Joint Fires Roadmap and NATO fires interoperability thinking. Exploit inherent UK fires strengths across domains centres of excellence (COE) and consider whether there is merit in a dedicated, but federated, NATO Fires COE.

Drive adaptation. Linked to the above, maximise the UK's key role in DIANA, presence within ACT and head start with MAVEN to energise the fires and targeting network (and centrality of data).

Enhance Training and Experimentation. Reflect Russia's recce-strike complex and it's centrality to their way of warfare within training. As a specific exemplar, programme Exercise DYNAMIC FRONT as a high priority for training and experimentation, and as a mechanism to drive forward the Artillery Systems Cooperation Activities (ASCA) protocol to enhance interoperability, including with partners.

Scalability. As part of industrial strategy developments, lead the way in fielding, certification and the standardisation of artillery ammunition and artillery pieces in support of ACT and NATO's Support and Procurement Agency (NSPA) initiatives. Be a leading light in NATO's recently announced Defence Industrial Action Plan.

7. *Inside Russia's Artillery Production: Key Plants and Cost-Saving Measures | Continental Defence*
8. *Russia's God of War - The Political and Military Power of Artillery | Royal United Services Institute*

The Journal of the Royal Artillery Field Artillery Command and Control in HQ ARRC

Field Artillery Command and Control in HQ ARRC

By Brigadier Rob Alston MBE

Brigadier Rob Alston commissioned into the Royal Artillery in 2000 and was initially posted to 47 Regt RA as an armoured HVM troop commander. He supported two different infantry battlegroups on exercises in both UK and Canada and deployed with the UN to Cyprus on Op TOSCA. He was posted to 40 Regt RA as a light role FST Commander in 2003, returned to Cyprus on Op TOSCA again and then deployed on exercise in role to Belize. Taking over as Adjutant 40 Regt RA in 2006, he deployed with the Regiment to Iraq on Op TELIC 9. Following promotion to Major in 2008 and after ICSC(L) he was posted to the MOD on the General Staff as SO2 Org and Plans where he was heavily involved in the 2010 Strategic Defence and Security Review, for which contribution he was awarded MBE. He assumed the role of Battery Commander of 97 Battery (Lawson's Company) RA (an AS90 battery) in 4 Regt RA in 2011. Exercises in Canada and Kenya preceded deployment to Afghanistan on Op HERRICK 17 in 2012 where he was part of the 1 MERCIAN Battlegroup.
Postings as SO2 Current Ops HQ 3 (UK) Div, as a student on the Advanced Command and Staff Course and as SO1 Recruiting in HQ ARTD followed, before Brigadier Alston returned to 4 Regt RA in 2016 as the Commanding Officer, supporting 7th Infantry Brigade and the Specialised Infantry Group. He was posted to the Personnel Directorate in 2018 as SO1 Personnel Change, responsible for some early pilots under Programme CASTLE. He promoted to Colonel in 2019 as Deputy Assistant Chief of Staff Personnel in HQ Field Army and was subsequently posted to the Royal Military Academy Sandhurst in Jul 2021 as the Chief of Staff. He assumed his current role of Chief Joint Fires and Influence in HQ ARRC in June 2023. He is the Chair of the Royal Artillery Heritage Committee.

This article, written by the current Chief Joint Fires and Influence at HQ Allied Rapid Reaction Corps (HQ ARRC), records how field artillery is commanded and controlled by HQ ARRC, the UK's warfighting Corps HQ. It is published at a time during which the British Army is enhancing the provision of combat enablers to the ARRC and is therefore a useful record of the current situation (in early 2025) ahead of any changes which may follow in the future.

The command and control of field artillery is a vital function of any combined arms, formation headquarters that aspires to conduct combat operations, as without effective field artillery support, the formation will not succeed. This article describes how HQ ARRC commands and controls field artillery and how the British Army is enabling the Corps with an artillery formation HQ. It also describes some of the challenges of the current arrangements and why there might be potential for change in the future, as the British Army reviews its provision of enablers for the Corps.

HQ ARRC is the primary British Army contribution to the NATO Force Structure. It consists of approximately 450 personnel, of which just under two thirds are British personnel and the remainder come from 20 other NATO nations. This makes HQ ARRC the most nationally diverse of the ten NATO corps HQs. HQ ARRC was born in 1992 out of HQ 1st British Corps (1st BR Corps), whose history goes back to the early 19th Century. During the Cold War, 1st BR Corps commanded the three British divisions and corps troops of the British Army of the Rhine (BAOR) in Germany. HQ ARRC was based in Rhinedahlen Germany from 1994 until 2010, since when it has been based in Imjin Barracks, Gloucester. HQ ARRC was the first of NATO's multinational land HQs and was therefore the model for the other multinational NATO deployable corps HQs that followed. The ARRC has the most operational experience of the NATO corps, having deployed

to Bosnia in 1995, Kosovo in 1999 and Afghanistan in 2006 and 2011. In common with those other corps HQs, HQ ARRC has spent periods of its history rotating between different roles, including those of tactical, warfighting corps HQ; land component command HQ; and joint force HQ, including periods at readiness for tasks such as the NATO Response Force. Since 2024 the ARRC has been focused on its current role as one of the Supreme Allied Commander Europe's strategic reserve corps HQs, consolidating around its tactical, warfighting role.

As at March 2025, HQ ARRC is supported by the 1st Signals Brigade (which also supports other deployable UK HQs such as the Standing Joint Force Headquarters) and the 104th Theatre Sustainment Brigade, which delivers theatre level logistics. There is no field artillery formation under command, although the command relationship between the Corps HQ and 7th Air Defence Group is growing closer, which is hugely welcome.

Historically, 1st BR Corps had an artillery commander: either a 2* Major General Royal Artillery (MGRA) or a 1* Commander Royal Artillery (CRA), with the MGRA being the norm during the Cold War. As the then Director Royal Artillery, Maj Gen Tomlinson, described in his article 'Handling Artillery Within the Corps', the role of the MGRA was to command and integrate all the artillery available to the Corps, including the divisional artillery commanded by the divisional CRA, and to mass the firepower of all that artillery in support of corps manoeuvre. Whilst 1st BR Corps was never required to do this in anger against Russia, the tactics and processes were put into effect in Iraq, at the very end of the Cold War, when a UK Division liberated Kuwait from Iraq, as part of a multinational Corps under US command on Op GRANBY, as very well described in Andrew Gillespie's book 'Desert Gunner'.

To meet the requirement for a field artillery formation to support 1st (BR) Corps, 1st Army Group RA (Field) which had been formed in 1955, moved to BAOR as the 1st BR Corps Artillery HQ in 1958. This formation was redesignated as 1st Artillery Brigade (Field) in 1961 and joined 7th Anti Aircraft Brigade in 1977 to form 1st Artillery Division, which was based in Dortmund. In 1985 the formation was redesignated as 1st Artillery Brigade and was based in Bielefeld. It was disbanded as the Corps artillery brigade in 1993, ahead of its reformation in 1997 in the UK in a new configuration and role, aligned with but not under command of the ARRC. The Brigade was subsequently expanded in 2013 to include the majority of RA close and general support field artillery units, at which point its focus shifted decisively from corps general support artillery to divisional close support artillery. 1st Artillery Brigade was disbanded in 2022 and replaced by 1st Deep Recce Strike Brigade Combat Team (1st DRS BCT), whose role is to support 3rd (UK) Division. With individual close support regiments supporting the brigades of 1st (UK) Division as part of the 'brigade combat team' construct, there has not been an artillery formation configured to support the ARRC since 2013.

With the removal of dedicated artillery formations under command of HQ ARRC after 1993, the post of MGRA was no longer required. It evolved initially into a 2* staff role of Chief Combat Support; notably the first two incumbents were both Royal Artillery officers. From 1997 that post was removed, leaving the 1* Chief of Fire Coordination as the lead for artillery support. From 2004 that role broadened to Chief Targeting and Information Operations, reflecting the primacy during at that time on targeting and information operations during counter insurgency operations in Iraq and Afghanistan. In 2007, the post made its final evolution into its current role of Chief Joint Fires and Influence Branch (Chief JFIB), which reflects the responsibility of the role for the planning and integration of fire support, ground based air defence, targeting and information activities. Chief JFIB is Commander ARRC's (COMARRC's) advisor on the planning and employment of all types of artillery, is their primary lead for the integration of multi domain (Joint) effects and is the lead for advising COMARRC on the planning and conduct of corps deep operations.

The Joint Fires and Influence Branch (JFIB) is currently 46 strong in barracks, including 22 British and 24 multinational staff. In addition to a small central coordination team, the Branch is structured via a matrix that balances each staff cell's responsibility for its functional capability (e.g. field artillery) with its contribution to the planning and execution of corps operations.

a. First, JFIB staff are grouped into functional teams: Joint fires (field artillery, air defence artillery and attack aviation); information operations (psychological operations, media operations, cyber and electromagnetic activities); and targeting. Each of these teams provides the specialist planning input and execution procedures relevant to their capabilities. Assistant Chief of Staff (ACOS) Jt Fires, for example, is responsible to Chief JFIB for the planning of corps field artillery support, including: the scheme of fires; priorities; Artillery Manoeuvre Area location and allocation; resourcing of tasks by fire units; the counter fires battle (including weapon locating); and the deliberate engagement of targets ordered in support of the land, air or maritime component commanders. They also plan the corps fires support coordination measures.

b. Second, JFIB staff are also grouped into cross functional teams to deliver different elements of the corps operations process. The corps conducts operations through a plan>refine>execute>assess

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process and is structured accordingly into three 'pillars': Future Plans (plan), Future Operations (refine) and Current Operations (execute), with assessment conducted across all pillars. JFIB staff therefore form multi domain operational planning teams in both Future Operations and Future Plans, working directly to the full colonel leads of those two teams (ACOS G5 and ACOS G35). The remaining JFIB staff are also grouped together to form the Joint Air Ground Integration Centre (JAGIC) in Current Operations, fighting the current deep battle and working to ACOS G3.

c. The JFIB as a branch therefore disperses on deployment, with staff resubordinated to each of the Corps HQ's three primary pillars. Chief JFIB's role consequently adjusts to focus on advising the Corps Commander and assuring the coherence of the planning and integration of Joint fires and information activities across the pillars, from planning, through refine, to the execution of the plan.

Whilst the JFIB contains the majority of the staff required to plan artillery support to operations, the Corps lacks a dedicated artillery formation to conduct that fire support or, indeed, the surveillance and target acquisition required to enable those fires. According to doctrine and operational experience, and as illustrated by the brief history above, the ARRC requires the support of a formation under which field artillery, surveillance and CSS units are task organised.

Since 2018 the ARRC (with the support of 1st Artillery Brigade and subsequently 1st DRS BCT) has been developing a solution to the lack of an organic artillery formation. It was identified that there were a number of Regular Army positions in 100th and 101st Regiments Royal Artillery that did not have a deployable, operational function. These posts were suitable to form the skeleton of a contingent (i.e. not permanent) corps field artillery brigade under the leadership of the Deputy Commander Reserves of 1st DRS BCT. They could be augmented by Army Reservists from across 1st DRS BCT (specifically 100th Regt RA) and by NATO allies when the brigade was required to be activated for training or operations. This formation became known as the 1st Multinational Field Artillery Brigade (1st MN FAB).[1] In 2020, NATO Land Command (LANDCOM) noted the work being done by the ARRC and the British Army and formally endorsed the concept of the Multinational Field Artillery Brigade (MN FAB) as a mechanism to address the lack of corps artillery formations more widely across the Alliance.[2]

The MN FAB provides the Corps with an organic ability to strike targets across the corps area of operations, contributing specifically to Corps deep operations. Specifically (and in accordance with the current, draft NATO standardisation agreement (STANAG) for an MN FAB), the role of the corps artillery formation is to:

a. Command all field artillery units allocated to the Corps for an operation and, in addition, control units that are task-organised under control of the Corps for specific activities.

b. Support the Corps HQ artillery staff in the production of artillery plans and orders.

c. Plan, prepare and execute fire support to the Corps, including offensive and defensive fires, counter-fires, and those fires directed by higher HQs in support of other components.

d. Reinforce divisional fires on the main effort.

e. Conduct suppression of enemy air defences with artillery fires, to support air component fixed wing and land component attack aviation activity.

Whilst the Corps will be heavily dependent on Joint surveillance and reconnaissance assets to fulfil the 'find to understand' role, and on other component commands for the full range of required offensive effects across the Corps deep battle area, the organic capabilities of the artillery formation provide a degree of guarantee for the corps commander that they can find and strike critical targets in all weathers and without external support. The composition of the ARRC fire support formation will be both task and resource dependent and should include units firing rockets (e.g. the M270 multiple launch rocket system) *General Support* to achieve the range required to reach targets in the corps deep. If task-organised under the corps' artillery formation HQ, close support tubed artillery (i.e. gun) units enable prosecution of closer targets in the corps deep and may allow the corps to allocate guns *General Support Reinforcing* to increase the combat power of the division on the main effort.

As described earlier, 1st MN FAB is commanded by an OF5 Brigade Commander. Whilst their command relationship on deployment is technically with the corps commander, in the ARRC they report in practical terms to Chief JFIB, in their role as the lead artillery advisor. The MN FAB HQ is a standalone command post that receives orders from the Corps HQ and controls the units of the brigade. It executes the tactical plan produced by planning staff in the Corps HQ, manages dynamic changes of the corps fire plan and responds to tactical events. They will control the movement of corps gun and launcher groups between AMAs and artillery reserve areas to maximise battlefield survivability and ensure surface to surface fires are in range to support the Corps deep battle. The FAB HQ will control the dynamic allocation of assets in response to resource requests and fight the corps counter fires battle, although it may delegate this to a subordinate regimental fire direction centre.

There were many challenges to the development of the MN FAB, not least the lack of organic Royal Signals or artillery command systems support to the HQ's command post on deployment, and a lack of organic brigade logistics and equipment support units. 1st MN FAB first exercised in 2022 in Germany and has subsequently exercised in 2023 (Denmark) and 2024 (Finland). Through the extraordinary commitment and support of Royal Artillery Reservists, particularly from the CO and officers of 100th Regiment RA, 1st MN FAB has proven itself a credible (albeit not fully resourced) capability in support of HQ ARRC.

The prosecution of targets by corps artillery is directed by the Corps JAGIC, which is responsible for integrating land fires with fires from other domains (air primarily, but also maritime, cyber, and electronic attack) in the execution of deep operations. The corps artillery staff produce an effects guidance matrix (EGM) which is signed off by COMARRC as their direction to the JAGIC. The EGM prioritises targets and states the target selection standards (TSS) under which they may be engaged, and with what. That empowers Chief JAGIC to identify targets on the common intelligence picture that are on the EGM and to decide with which asset to engage them, if they meet the TSS. The JAGIC prosecutes pre planned deliberate targets and initiates combat engagements of opportunity targets. Once it receives a fire mission the corps artillery HQ decides the allocation of fire units to each mission, as it has better situational awareness of the operational and logistic situation of each fire unit than the JAGIC. The JAGIC integrates artillery fires with other capabilities and, specifically, deconflicts them with air activity in corps managed airspace (or divisional if delegated) and with the Air Component Command. The corps and divisional JAGICs work together to conduct deep operations at echelon, passing targets between each other so that both JAGICs prosecute their priority targets wherever they are identified, with the support of the other JAGIC if necessary.

To achieve the speed of response required for effective counter fires, the control of the weapon locating system and the associated counter-fire units would ideally lie with a nominated counter fires force, which could be a dedicated field artillery formation, or (more likely) the corps MN FAB doing it in addition to corps fire support. Alternatively, it could be delegated to a regiment specifically tasked with counter fires. Currently however, given the range of the British Army's weapon locating systems, counter fires is a divisional activity, and therefore conducted by 1st DRS BCT.

There are several factors which might change the command and control of field artillery in the ARRC in the future. Firstly, under the Land Operating Concept (published 2023), the Army described its ambition to 'fight by recce-strike at all levels'. It described a future where Army formations were able to ingest targeting data from 'any sensor' that had visibility of the battlefield, passing that data digitally to an empowered decider in the formation HQ, who in turn would be able to call on the fire of 'any platform', Army or Joint, within range of the target. To be able to conduct that approach at the corps level with organic assets (which remain the most reliable, if not the most powerful) the corps needs surveillance, target acquisition and fires units under command; at the very least on operations.

Secondly, the British Army has stated that it will enable the ARRC with more combat support and combat service support. Already announced is that 7th Air Defence Group will resubordinate under HQ ARRC later in 2025. This is an important change for the Gunners as it will see the UK's ground based air defence formation elevated to the UK's highest tactical level and start consolidating relationships with NATO's integrated air defence structure. Similar changes are expected for the Army's aviation brigade. It is possible that the Army may consider making a similar realignment or investment in a corps artillery formation in the future.

Finally, HQ ARRC has been experimenting with several digital applications that will increase targeting capacity and enable the passage of digital fire control messages between HQ ARRC and its higher and flanking formations, and down into corps and digital artillery. A future digital fire control application may therefore give the JAGIC sufficient situational awareness to send fire missions directly to platforms, simplifying and speeding up the kill chain, reducing the workforce and signals equipment requirement in the artillery formation HQ, and allowing the JAGIC to increase the number of daily target engagements, within ammunition and other resource constraints.

In summary, the command, integration and provision of field artillery support to HQ ARRC has undergone numerous changes over the years, reflecting the changing operational context and focus of the Corps HQ. With the current focus on training for large scale combat operations against a peer adversary has come a renewed focus on how the Corps will command, control and resource its general support artillery. Pending any future changes, the artillery staff within the JFIB and the 1st MN FAB will continue to work together to deliver field artillery support to the Allied Rapid Reaction Corps during training exercises and, if called upon to fight, on operations.

1. Terminology for corps artillery formations is inconsistent and therefore confusing. The US refers to field artillery brigades, as increasingly does NATO and the ARRC: hence 1st MN FAB and in the/ US Army, 17th Field Artillery Brigade (FAB) supports I Corps; 41st FAB supports V Corps; 18th FAB supports XVIII Corps; and 75th FAB supports III Corps. But the UK also uses the term Corps Artillery Group to mean the same thing, potentially reflecting that it might be commanded by a full colonel, rather than by a brigadier. But US FABs and 1st MN FABs are commanded by colonels anyway…
2. MN FAB LANDCOM endorsement letter, 16 Nov 2020.

The Journal of the Royal Artillery Remote Control Howitzer 155mm

Delivering the Next Generation of 155mm Close Support Artillery Capability

By Lieutenant Colonel Jon Searle BEng MSc Royal Artillery

Lieutenant Colonel Jon Searle RA was commissioned into the Royal Regiment of Artillery in December 1994. Early postings were with 19th Regiment RA as CPO and GPO, 40th Regiment RA as FOO and BK, and then 22nd Regiment RA, an Air Defence regiment, as Adjutant then BC HQ Battery. In this period, he deployed on operations twice to Bosnia, with the UN and NATO, and to Cyprus, and participated in a number of MACA tasks, notably Op FRESCO in 2002. He attended Staff College in 2003-05 completing an MSc in Defence Technology and ACSC (back then this was completed as a Major). Subsequent regimental appointments included Battery Command of P Battery RA, when the battery deployed weapon locating capabilities to both Iraq and Afghanistan, and Second-in-Command of 39th Regiment RA during which time he oversaw the deployment and recovery of all five of the regiment's precision fires batteries to Afghanistan. On the staff he has served principally in the Capability and Acquisition career field, in Defence Equipment and Support (DE&S) as a project officer and requirements manager, on operations with Headquarters Joint Force Support Afghanistan responsible for fielding urgent operational requirements, and in Army HQ as a programme manager. He has also completed assignments in the Army Personnel Centre and at the Defence Academy, as Directing Staff on ICSC(L). Currently Lieutenant Colonel Searle is serving as the Project Lead for the Mobile Fires Platform team in DE&S.

The Mobile Fires Platform (MFP) project, the lead project in the Army's Close Support Fires Programme (CSFP), will deliver the Royal Artillery's future self propelled 155mm artillery gun, providing a game changing uplift to the Army's Close Support artillery capability. MFP will be central to the UK's commitment to the NATO New Force Model and will contribute to the Chief of the General Staff's intent to double and treble lethality. The UK aims to achieve a Minimum Deployable Capability (MDC)[1] Wwithin this decade, to address a capability gap made stark by the granting-in-kind of AS90 to Ukraine, which has only partly been mitigated by the procurement of Archer 6x6 as an interim solution. Concept Phase work on the Army's MFP requirement led to Outline Business Case (OBC) approval in April 2024 to move forward with the Remote Control Howitzer 155mm (RCH155) artillery system in collaboration with Germany. RCH155 was the recommended choice given its technical maturity, strong military capability, logistics commonality with the wider Army fleet, NATO interoperability, and industrial and UK export opportunities. This article will set out the MFP requirement, introduce RCH155, and highlight critical the pan Defence Lines of Development (DLOD) challenges (more questions rather than answers) of incorporating a, relatively, technologically novel fires platform into the Gunners' order of battle.

1. The Integrated Procurement Model – Driving pace in the delivery of Military Capability, dated February 2024, cites "Delivering a minimum deployable capability quickly, and then iterating it in the light of experience and advances in technology – rather than waiting for a 100% solution that may be too late and out of date" as a key tenet to delivering capability quickly in conjunction with our industry partners.

RCH155 – "in with the new." *@ KNDS*

Requirement

"The User requires a modern all-weather, 24hr capable, indirect land fires platform capability to deliver enhanced artillery effects at greater range. The capability will prioritise operational mobility whilst remaining survivable in the counter-fires battle, in support of the Integrated Force in future multi-domain operations across the IOpC[2] framework. Technological advances, particularly in automation, will be embraced to increase responsiveness and reduce the number of soldiers required to operate it, as well as to enable the capability to operate in a dispersed, decentralised, and network-integrated manner."

Single Statement of User Need

Close Support artillery, offering 24/7 persistent and cost effective delivery of lethal and non lethal effects at range and in all weathers, is central to the Army's vision of how it expects to fight and win wars on land. It is at the sweet spot of indirect fire and is expected to remain so for the foreseeable future. The ongoing war in Ukraine has reinforced the power and centrality of modern artillery to warfare, with fires shaping operational and tactical outcomes throughout the conflict. It is estimated that 85% of casualties in the war are from artillery, the majority likely to be from Close Support artillery.

AS90 – "out with the old." *@ UK MOD*

Against this backdrop, the British Army has a capability gap in Close Support artillery: even before the decision in January 2023 to grant-in-kind AS90 to Ukraine, risk had been taken against Close Support artillery, with limited investment for the first two Counter Insurgency focussed decades of this millennium. The Army's current (nay, previous) self propelled gun, AS90, is outranged, with a maximum range of 24.7km versus the 36km of its Russian 2A65 and 2S19 competitors. The Army's lack of artillery mass has been highlighted by the UK media, RUSI, Dstl (Defence Science and Technology Laboratory) commissioned Operational Analysis and UK Military Intelligence.

With respect to military capability, the MFP requirement has been developed based on three fundamental characteristics:

- **Lethality.** Lethality as determined by the gun, rather than ammunition, is based on range, rate of fire, responsiveness, turret stock and resupply rate.

- **Mobility.** This relates to both operational mobility (getting to the fight) and tactical mobility (manoeuvring within the fight). The Land Operating Concept: A New Way of Winning identifies the need for 'a more self sufficient force able to move further, faster,' Put simply, 'speed matters.'

- **Survivability.** As a high value target, survival on a contemporary battlefield, with new pervasive threats such as drones, will depend on sufficient physical and electronic protection paired with fast into/out-of-action times and high tactical mobility ('shoot and scoot').

Interim capability – Archer. Following the granting-in-kind of AS90 to Ukraine, the Archer 6x6 was procured from Sweden as an interim capability to bridge the gap until the delivery of the new MFP. Consequently, fourteen guns have been procured by the UK, and they are, at the time of writing, expected to deploy on operations in March 2025. Importantly, Archer will provide valuable lessons for the MFP project, not least in the employment and deployment of an automated 'magazine fed' gun system.

2. Integrate Operating Concept, dated 2021. The framework: Protect, Engage, Constrain, Warfight.

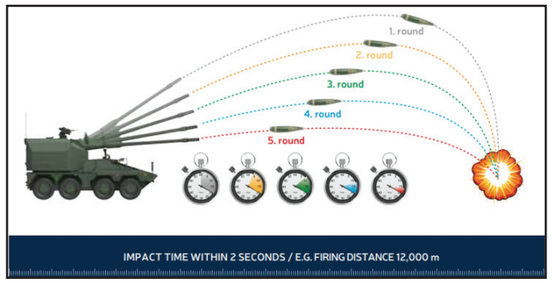
Archer – "in the meantime." *@ UK MOD*

RCH155. As stated in the introduction, approval was given in April 2024 to proceed with the development of the RCH155, a wheeled self propelled howitzer, developed by KNDS,[3] comprising a Boxer 8x8 drive module (DM) that has been specifically adapted to mount a fully automated turret: the 'Artillery Gun Module' (AGM). The key characteristics[4] of the platform are:

- **Lethality.** The RCH155 takes the firepower and the range of the Panzerhaubitze 2000 by using its Rheinmetall L52 155mm

Panzerhaubitze 2000. *@ KNDS*

'weapon system'[5] and combines it with an automated and remotely controlled (from the crew positions) gun module, the AGM. It is capable of firing Joint Ballistics Memorandum of Understanding (JBMOU) compatible projectiles up to a range of 30km for 'normal' munitions, 40km for base-bleed ammunition, and even further for other 'assisted' projectiles, e.g. Vulcano[6] and M982 Excalibur;[7] the combat load is 30 fuzed projectiles and 144 modular charges. RCH155 will be qualified to fire in-service UK ammunition: deployment of an early capability, or MDC, may require a get-you-in-pack of German ammunition and charges, pending full qualification. The system is capable of a rate of fire of 9 rounds per minute and can conduct



MRSI. *@ KNDS*

Multiple Rounds Simultaneous Impacts (MRSI) engagements, i.e., one platform can fire a number of rounds and ensure they land at the same time through timely variations in elevation and charges.

- **Mobility.** The Boxer DM mounts an 'MTU Friedrichshafen' 600kW engine, which provides both operational and tactical mobility.

Boxer DM with representative RCH155 weight and CofG climbs a 1m step… @ UK MOD

3. KNDS, formerly KMW+Nexter Defense Systems, is a European defence industry holding company, which is the result of a merger between Krauss-Maffei Wegmann and Nexter Systems.
4. Taken from open-source material.
5. Defined by the manufacturer as the elevating mass including the muzzle brake, barrel, breech, recoil mechanism, and trunnions.
6. Vulcano is a family of extended range ammunition designed by Italy's Leonardo in partnership with Diehl for the 76mm, 127mm naval guns and 155mm land artillery systems. It is available in two variants: An unguided projectile called BER (Ballistic Extended Range) and a guided one called GLR (Guided Long Range).
7. By BAE Systems.

The platform can reach a maximum speed of 103kmh and has a range of 700km; and it has impressive cross country agility able to provide rapid into and out of action times of less than 15 seconds.

…and a wet clay hill. *@ UK MOD*

- **Survivability.** The RCH155 features a crew of two, commander and driver; sat one behind the other on the right side of the drive module. They are protected "from 14.5mm heavy machine guns and artillery shrapnel."[8] There is also protection against anti tank and anti personnel mines. The system is equipped with a remote weapon station, which acts as both a self defence weapon, mounting the GMPG, and as the 'direct fire' sight for the main gun (and for crest clearance calculations), a smoke grenade launcher, and a CBRN (Chemical Biological, Radiological and Nuclear) protection and ventilation system. Importantly, the platform's rapid into and out of action times, contribute significantly to survivability; the "don't be there" layer of the survivability onion.

Collaboration opportunities with Germany. Central to the justification of RCH155 in the OBC (Outline Business Case) was the opportunity to collaborate with Germany, specifically our partners in Bundesamt für Ausrüstung, Informationstechnik und Nutzung der Bundeswehr (BAAINBw: you'll want to read the footnote…)[9], the German equivalent to Defence Equipment and Support (DE&S), on the development, testing and qualification of the RCH155; exploiting each other's resources and sharing qualification and trials data to deliver RCH155 as rapidly as possible to our respective armies. The collaboration was announced jointly by the British Prime Minister and the German Chancellor on 22 April 2024, and followed up by a Statement of Intent between respective Defence Secretaries, and then enshrined in a MoU between DE&S and BAAINBw. The collaboration was subsequently reinforced through the Trinity House Agreement, all of which should offer the longer term benefits of interoperability on operations and in training, and through life support.

Pan DLOD considerations. The DE&S MFP Delivery Team is delivering the 'Equipment' DLOD: the gun itself, train-the-trainer training, and the support solution. But it will be the pan DLOD integration by the Army Headquarters based CSFP Team that will enable delivery of a capability, critically:

- **Doctrine:** the 'master' DLOD… While a new close support fires capability won't necessarily change the way we employ artillery and its effects, a 'novel' platform will affect how we provide those effects. In the case of RCH155, optimised for 'shoot and scoot' tactics to enhance survivability, having a crew of two and an automated turret with a 'magazine' will mean developing new Organisation, Deployment and Operating Procedures, perhaps more along the lines of MLRS. A key question for an automated 'magazine fed' platform will be how to deliver sustained rates of fire if platforms have to come out of action to replenish the magazine. Here Archer will provide invaluable insights.

- **Training, Personnel and Organisation:** I've grouped these DLODs together as the characteristics of RCH155 link them inextricably. Notwithstanding integration into existing and future training systems (e.g., Joint Fires Synthetic Trainer and VULCAN[10]), a 2 person crew (distinct from a gun detachment), while on the face of it offering a workforce saving, will raise questions around fighting in the 24/7 battle. And how do we select and train personnel to operate with far greater levels of independence and autonomy than hitherto experienced? What of the 'independent check'? What about the cognitive burden and crew capacity to drive, command and operate the platform? All with attendant potential impact on detachment structures and career paths. I said there are more questions than answers…

- **Information:** there are two elements to the 'Info' DLOD: the integration of Bowman and FC BISA (Fire Control Battlefield Information System Application) into the platform; and qualifying UK ammunition and generating firing data for incorporation into the NATO Armaments Ballistic Kernel (aka the NABK). For the former, and notwithstanding the challenge of securing sufficient Line Replaceable Units, if we want to deliver platforms quickly, we will, in the first instance, have to employ a 'swivel-chair' interface between FC BISA and the RCH's gun control unit, prior to full integration of FC BISA. For the latter, qualifying UK ammunition is typically a lengthy process, but this is where the collaboration with Germany is vital in sharing resources and reducing the time to qualification. Here, and again, a 'get-you-in-pack' of German ammunition will mitigate any lengthy qualification process.

Summary

There is no doubting the centrality and contribution of Close Support artillery to the Army's ability to fight and win wars on land; history, most recently Ukraine, illustrates this. RCH155 offers a potent combination of lethality, mobility and survivability to enable this. A novel platform exploiting new technology presents a real opportunity for a step change in artillery capability. And collaboration with Germany offers opportunities for rapid delivery and long term interoperability and supportability. There will be challenges, pan DLOD, which will require novel solutions, informed by Archer, and trials and testing by the officers and soldiers of the Royal Regiment.

8. Data from KNDS website.
9. The Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support is a German government agency for equipping and supporting the German armed forces – effectively it is a combination of DE&S and Defence Digital.
10. VULCAN is a 'ground manoeuvre synthetic trainer' system by Elbit that will deliver simulated training for land-based platforms, predominantly Boxer and Challenger 3.

The Journal of the Royal Artillery Duncan Essay

DUNCAN ESSAY 2024

Fire or Manoeuvre?

To what extent did firepower come to dominate British operational planning on the Western Front in the Great War?

By Lieutenant Christian Hedicker Royal Horse Artillery

Lieutenant Christian Hedicker RHA was commissioned into the Royal Regiment of Artillery in the winter of 2022 and finished his Young Officers' training in April 2023. Since then, he has had a brief stint in 19 (Gibraltar 1779-1783) Battery, 26 Regiment Royal Artillery where he was fortunate to deploy on Ex LIGHTNING STRIKE in Finland which saw the first UK Live Firing of MLRS outside of Afghanistan, Iraq and the United States. Over the past year and a half he has been serving with C Battery, 3rd Regiment Royal Horse Artillery which has recently returned from deployment on Op CABRIT (E) 14.

Upon inspection of the evidence, it is apparent that throughout the Great War of 1914-1918, firepower became intrinsic to British operational planning on the Western Front but was not the solely dominant factor. To evaluate firepower's importance, the paper will initially examine the influence of firepower and manoeuvre on the commanders and headquarters staff of the British Expeditionary Force (BEF) in the battles of 1914 and 1915. Subsequently the paper will analyse the evolving importance of firepower throughout 1916 and 1917 before concluding with an assessment of its role during the final year of the war in 1918. Throughout, the paper will maintain and demonstrate that firepower, though integral to operational planning, was not the sole planning tool of war in the headquarters elements of the BEF. As Jonathan Bailey writes 'artillery did not constitute a battle winner by itself,'[1] but when organised and employed effectively in a combined-arms battle, firepower, with manoeuvre, 'often prove(d) the foundation of success on the battlefield and determined the pace of operations.'[2]

Prior to analysis, it would be pertinent to give the terms 'firepower', 'manoeuvre' and 'operational' definitions. For the purposes of this paper, firepower, as summarised by David Zabecki, will be taken to be 'the kinetic energy effect that destroys, neutralises or suppresses an objective' primarily by armies' artillery capabilities.[3] Manoeuvre will be taken to mean the aim of 'out-thinking and outmanoeuvring opponents to gain a decisive positional advantage against their weaknesses.'[4] Operational will be defined as the level of command which connects the details of tactical actions with the goals of strategy.[5]

Firepower, doctrine and the BEF in 1914

As Sanders Marble writes, 'the Western Front (was) notorious for fire without movement'.[6] However, at the conflict's outbreak and primed with recent lessons from the Boer War and observations of the Russo-Japanese War, the BEF sought to use firepower to facilitate manoeuvre, primarily by means of flanking movements to overwhelm the enemy and gain a decisive positional advantage.[7] Indeed the *Field Artillery Training* pamphlet focussed on a 'war of movement and position' with the importance of 'the moral effect of the batteries advancing boldly.'[8] As Paul Strong and Marble acknowledge, the pamphlet failed to define or set out how firepower would be coordinated in such scenarios, with the main focus being on the moral effect of firepower's ability to manoeuvre with the infantry and cavalry.[9] This is very much also reflected in the Royal Regiment of Artillery's status in the social ranking of the Army where artillery was regarded as an ancillary to the more predominant arms of the infantry and cavalry.[10]

How the BEF planned to apply and integrate its firepower to the modern conventional battlefield of 1914 was predominantly doctrinally uncertain and was not aided by the undefined roles of Royal Artillery Commanders in Corps and Divisions who had minimal staffs. Thus, at the outbreak of the war the British Army's firepower was primarily weighted towards mobility in being able to move and support the Infantry and Cavalry Divisions which formed the initial two corps of the BEF.

The BEF and the Race to the Sea

With the enactment of the Schlieffen Plan, war on the Western Front broke out in August 1914. As previously determined, the BEF anticipated a campaign of manoeuvre where long hard marches and fighting would bring it into contact with the opposing German forces' flanks. The opening action at Mons in August 1914 saw the British employ a significant percentage of its firepower in the direct fire role alongside the infantrymen, largely what the light and mobile artillery pieces of the BEF had been envisioned to do.

After the fierce fighting at Mons, both the BEF and French Army attempted to turn the open northern flank of the advancing German armies in a series of battles which later became known as the 'Race to the Sea'. From September to December 1914 both the allied and German forces sought to turn the last open flank in the northern area of operations around the Belgian boarder and coast. Unlike other belligerents, the BEF in 1914 was peculiar as it was the only major army to be entirely constituted of volunteers. Whereas Germany, France and Belgium fielded conscript armies that could deploy millions of men into the line. This hitherto unseen mass and density of manpower was predominantly a result of the rising political tensions of the late 19th and early 20th centuries where the politicians and public of many continental European nations were willing and able to put large numbers of men in uniform to protect their nations from the perceived threats on their borders.[11] This mass of manpower, coupled with the fact this was the first European conflict since the conclusion of the Industrial Revolution, meant there were millions of soldiers on the front, sufficient enough to face-off from the Belgian coast to the southern French border leaving no flanks to turn.[12]

The conclusion of the 'Race to the Sea' and the stalemate of late 1914 gave the BEF time to consider its position on the Western Front and how it would operate in the future. The BEF of 1914 had been designed for manoeuvre and it now found itself having to adapt to the reality of static warfare which was very manpower intensive. Moreover, the allies did not have the luxury of choosing to delay the conduct of offensive operations. A significant pause to allow greater manpower, munitions and supplies to be brought to the front would have given the Germans the opportunity to concentrate on knocking out Russia. To do this would have resulted in Germany being able to rebalance its forces and bring greater numbers to bear on the front once the comparatively weak Russian forces had been defeated, therefore it was imperative for the Allies to continue to attack into the next year.

Thus in 1915, the British General Headquarters (GHQ) and French Grand Quartier Général (GQG) acknowledged the importance of renewing offensive operations. The lightly scaled infantry divisions and corps of 1914, which had only two Vickers Machine Guns per battalion, simply did not have the firepower to capture positions defended by equally armed opponents who

1. Bailey, Jonathan (1989). Field Artillery and Fire Power. Routledge p.121.
2. Ibid.
3. Zabecki, Military Developments.
4. MoD, Land Operations, p.2-2.
5. Ibid.
6. Marble, Sanders (1998). The Infantry cannot do with a gun less: the place of artillery in the BEF, 1914-1918*, p.2.*
7. Ibid.
8. HMSO (1914) Field Artillery Training 1914, pp.252, 259.
9. Strong and Marble (2013), Artillery in the Great War, p.16.
10. Bidwell, Shelford (1972). Gunners at War, p.2
11. Marble, Sanders (1998). p.2.
12. Zabecki.

had constructed systems of defensive positions.[13] By process of elimination this left the BEF's Commander-in-Chief, Field Marshal Sir John French and his senior planners with the conclusion that firepower was the variable that required scaling up to find the formula for success.[14] The British also had a lack of doctrinal focus on fire support for the infantry which often left them to their own and going into 1915 the BEF had to contend with finding the method to win battles and deal with an army rapidly expanding to a size never seen before.[15]

Expansion, trials and learning to fight – The BEF's operations of 1915.

The BEF's battles of 1915 demonstrate how the concept and application of firepower in operational planning was still maturing within the context of a rapidly expanding army facing the realities of intensive manpower and materiel requirements of modern war. As previously identified, the BEF could not afford to stand on the strategic and operational defensive. Accordingly, Sir John French planned a number of offensives throughout 1915, in some cases seeking limited objectives and in others seeking a breakthrough to restore mobility to the battlefield. This lack of clarity on the purpose and aims of the operations often lead to the application of firepower being muddled. In planning for the Battle of Neuve Chapelle, where the aim was unclear, new features were made available in the acknowledgement that the artillery preparation was becoming increasingly important.[16] The attack initially went well for First Army and its two corps who managed to clear German first line defences. Thereafter, primarily due to the rudimentary command, control, and communication (C3) systems, the coordination of further fire support and movement of reserves to the front became increasingly difficult and the offensive petered out after three days. Above all else Neuve Chapelle demonstrated the clear case that it was easier for the defender to disrupt the attacker's combination of fire and movement than it was for the attacker to breakthrough the defensive line.

The Battle of Aubers Ridge, Festubert and Loos further solidified this and showed how the coordination of firepower and movement continued to be hampered by the lack of effective C3 systems whereby the infantryman was unable to communicate his need swiftly and effectively for more, or indeed less, fire at certain stages of operations. The C3 system of the time could handle the initial phase in an assault on German defences but lacked the means and flexibility to handle advances thereafter.

'One's head is like a madman's'[17] – the BEF and firepower on the Somme in 1916

British planning for operations in 1916 and the Somme offensive encapsulates how the planners' appreciation of firepower had evolved after nearly two years of war. After the limited gains and casualties sustained in the battles of 1915, the BEF replaced Sir John French with the First Army commander General Douglas Haig. On the Somme, Haig, by means of attrition, hoped to inflict large casualties against the German Army Group to his front, and thereby restore manoeuvre to the battlefield, primarily facilitated by means of firepower.[18] After reviewing the operations of 1915, GHQ and Army headquarters had developed their understanding for the need of a well thought out fireplan and acknowledged the requirement of an army wide artillery order to facilitate this.

For Fourth Army, the formation selected by Haig to lead the assault on the Somme, this was laid down by Brigadier General Budworth who dictated the priorities to the corps artillerymen for them to be implemented. These Corps HQs had also grown to include a Commander Heavy Artillery (CHA) and Brigadier General Royal Artillery (BGRA) who would coordinate and refine the fireplans down the division and brigades. Despite this evident acknowledgement in the planning cycle for the campaign that firepower needed to form a greater part of the planning process, it is evident that the CRAs at all levels were distinctly subordinate to the army and corps commanders to whom they belonged, and it was these men who laid out the final parameters for the preliminary bombardment.[19]

The opening day of the Somme offensive is a remarkable day of British military history where the BEF sustained 57,470 casualties and could only breach the German defences as far the Second Line in the majority of locations.[20] Simply, the artillery was called upon to achieve more than it was capable of for the first day having to cover the 25 mile front with rudimentary C3 methods that had still not significantly developed from the previous year.[21] Moreover, due to the prolonged nature of the bombardment the element of surprise was lost and the work to cut the wire and conduct counter battery (CB) missions was in Nick Lloyd's words 'completely inadequate.'[22]

As the Somme campaign progressed, Fourth Army and its planners soon began to develop a method in planning firepower which 'instead of so many yards per howitzer, … became x shells per yard of German trench with the number varying according to the strength of German defences,'[23] though it was the introduction of the tank at Flers-Courcelette that heralded a significant change in doctrinal concepts and marked the beginning of the first combined arms (infantry, artillery, and armour) operations in the history of the British army. Though the tanks experienced modest success and proved mechanically unreliable, planners at GHQ appreciated that the tanks 'must not be allowed to dictate tactics.'[24]

13. *Marble (1998), p.3.*
14. *Ibid.*
15. *Strong and Marble (2013), pp.17-18.*
16. *Strong and Marble (2013), p.45.*
17. *A German soldier on the Somme. Quoted in Passingham, Ian. (2005).* All the Kaiser's Men, The Life and Death of the German Army on the Western Front 1914-1918*, p.107.*
18. *Strong and Marble (2013), p.91.*
19. *Ibid, p.90.*
20. *Travers. (1987),* The Killing Ground*, p.222.*
21. *Ibid, p.223.*
22. *Lloyd, Nick. (2021).* The Western Front: A History of the Great War, 1914-1918*, p.218.*
23. *Strong and Marble (2013), p.95.*
24. *Ibid, p.98.*

As the campaign neared the end of November 1916 and with increased German reinforcements from Verdun, the BEF drew down operations on the Somme. Major-General James Frederick Noel Birch, Major General Royal Artillery (MGRA) at GHQ, drew four major lessons which would come to shape how firepower influenced planning into 1917. Birch noted that the artillery plan needed to be instituted and cascaded from the army level in order to coordinate matters with the infantry, and with better intelligence and accuracy to conduct as much CB work as possible. Drawing on these conclusions, and from the formalisation of a new system of learning lessons, for 1917 the BEF would have new manuals 'that would not only include what artillery should do' but how it would be coordinated with the infantry.[25] This demonstrated how firepower's importance to operational planning was increasing, but only with the intent of how it could facilitate the infantry onto its objectives because, as Marble writes, 'plenty of fire support did not guarantee success.'[26]

Towards Combined Arms – firepower in the operations of 1917 and 1918

By 1917 the BEF began to benefit from a War Economy which had been redirected to feed the material and materiel intensive hunger of the Western Front, especially with regards to artillery ammunition. Moreover, the influx of British conscripts called up for the first time in 1916 now meant the BEF could initiate more operations similar to the scale of the Somme and the battles of 1917 demonstrated the near culminating point of firepower's importance to operational planning on the Western Front. The stalemate of 1915 and 1916 continued to reinforce the British planning belief that the front required a breakthrough battle in an effort to restore mobility on a tactical and operational scale. The battles of Arras and Third Ypres were such efforts to force the breakthrough which Haig so desperately sought. They also demonstrate the extent to which firepower's importance had continually increased within the planning staff of GHQ and other Army HQs. Bearing in mind the lessons identified by Birch after the Somme, the barrage at Arras was particularly effective in neutralising over 80% of the German heavy guns on the opening day of the offensive.[27] This successful neutralisation aided in getting the infantry onto the majority of its objectives on the opening days of the battle.[28]

The initial success, however, was hampered by later issues where the attacking Third Army could not successfully sequence and resource its attacks to force a breakthrough. This, coupled with the fact the simultaneous French offensive on the Aisne had failed, resulted in the Arras battlefield becoming a stalemate. Ultimately, this demonstrated why although firepower's importance to operational planning was evident, its importance only extended as to how far it could be successfully integrated into a combined arms battle where the pace of infantry operations was dictated by the supplies necessary to sustain a manageable operational tempo.

After absorbing the shock of the Kaiserschlacht, where in March 1918 the Germans achieved some territorial gains but exhausted their supplies in an attempt to secure a more favourable peace deal, the BEF turned to the offensive in August 1918 in an effort to push the stretched German armies eastwards. By now 'it was possible for artillery to shift effortlessly between …. trench warfare and mobile fighting.'[29] The centralisation of British tanks into a concentrated combined arms formation further strengthened the firepower available and meant artillery could be freed for CB work and neutralisation tasks. The attacks of August to November 1918 were prosecuted at a high tempo and with surprise which was backed by an adequate allocation of firepower due to the staff work which had matured thanks to the lessons of the previous years.

These concluding battles encapsulate the maturity to which the British combined arms approach had evolved since 1914. The case of Amiens on 8 August 1918 in particular demonstrates the approach's overwhelming effectiveness. Utilising improved C3 methods to facilitate a more flexible and comprehensive fireplan covering neutralisation and CB tasks, the BEF combined indirect and direct firepower to overwhelm the stretched German defensive systems and advance 8 kilometres and take 18,000 prisoners and 400 guns.[30] These outstanding gains lead General Erich Ludendorff, the de-facto commander of German forces, to describe Amiens as the 'Black Day' for his country in the war[31] Moreover, from Amiens onwards and due to the increase in resources from the War Economy, the BEF and its allies were able to replicate the formula of 8 August and inflict a further 760,000 casualties and gain over 50 miles of territory to the extent that Germany felt pressed into signing an Armistice on 11 November 1918 and thus bring the war to an end.

A statistical note on firepower

Statistically, firepower's importance can be observed by the variation in figures of the artillery throughout the war. In August 1914, the Royal Field Artillery (RFA), Royal Horse Artillery (RHA) and Royal Garrison Artillery (RGA) constituted some 19.58% of the BEF.[32] By the end of the war, the proportion had increased drastically to 26.98%.[33] The RGA, with its heavy-calibre guns which were particularly effective on the Western Front, increased considerably from 1.31% to 8.68%.[34] Comparatively the cavalry, the traditional and fashionable manoeuvre arm, dropped from 9.28% of the BEF to 1.65%. In a similar fashion, the infantry's manpower dropped from 64.24% to 51.25%.[35] These substantial changes in proportions further demonstrate firepower's centrality to operational planning on the Western Front as the

25. *Ibid, pp.99-100.*
26. *Ibid.*
27. *Wynne, G. C. (1976).* If Germany Attacks: The Battle in Depth in the West*, pp.173-175.*
28. *Oldham, Peter (1997).* The Hindenburg Line*, p.50.*
29. *Marble (1998), p.363.*
30. *Strong and Marble (2013), p.185.*
31. *Ibid, p.183.*
32. *Travers (1996), p.212.*
33. *Ibid.*
34. *Ibid.*
35. *Ibid.*

need for more and varied calibres of firepower rose throughout the war. Indeed, the Royal Regiment of Artillery grew so much that by the end of the war it outnumbered the whole arm of the Royal Navy.[36]

Conclusion

In conclusion, it is apparent that firepower was indeed intrinsic to British operational planning on the Western Front. As has been shown, the BEF went to war trained and focussed on manoeuvre. Throughout the conflict, especially at the higher levels of command and planning, the BEF sought to restore operational mobility to the battlefield. With the conduct of each successive operation, the need for a well equipped, planned and executed fireplan to support each advance became pressingly evident. By 1918, and especially during the stunningly successful Hundred Days campaign, firepower had come to form a crucial part of the planning process for British operations. As acknowledged in the paper, this was heavily reflected in the growth of artillery pieces available, artillery staffs in HQs, and in the dramatic growth of artillery as a percentage of the total BEF.

Although clearly integral to the conduct of operations, firepower was not alone, and a collective approach was required. Indeed, what can be observed over the course of 1914 to 1918 is the maturing of a combined arms approach where the needs of the infantry and artillery (and eventually armour) were all equally considered. After the Armistice and with the conclusion of hostilities in Europe, the British assumed that the methods of the Western Front were unique to the period and thus discarded key elements of the adaptive ethos and doctrine that had made them one of the most effective artillery forces of the war.[37] This would come back to haunt the British Army in 1940 who, in Lord Dannatt and Richard Lyman's words, turned 'victory to defeat.'[38] In the light of the ongoing Russo-Ukrainian War and the deteriorating stability of the world, the need to learn, master and retain the hard learned lessons of war has perhaps never been more critical.

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Arctic Warfare Training in the 1970s

By Major Malcolm Dix

Malcolm Dix is a retired Gunner living in East Lothian who served in 145 (Maiwand) Battery in 29 Commando Regiment in Arbroath and in 19th Field Regiment (The Scottish Gunners) where he commanded 13 (Martinique 1809) Battery, the AMF(L) Battery, and also served as Second-in-Command. He completed two tours in the MoD working on Short Range Air Defence and subsequently writing the General Staff Requirement for Remotely Piloted Vehicles (Phoenix).
On retiring in 1984 he worked in the Defence Electronics Industry for 10 years, principally concerned with the Surveillance Radar for Rapier FSC, before becoming a Career Coach and a Director of the Officers' Association Scotland. He has been a member and patron of the Royal Artillery Council of Scotland for 30 years.

Introduction

When asked about my military service I tend to mention that I spent the majority of my career in cold climates: Northern Germany, Scotland, Northern Ireland and Northern Norway. My introduction to Northern Norway, the coldest and most demanding, followed posting to 29 Commando Regiment in Plymouth, on completion of the All Arms Commando Course at the age of 28. As a Troop Commander in 145 (Maiwand) Battery I discovered that the battery was shortly to move to RNAS Condor, Arbroath, along with 45 Commando RM in order to undertake the new Arctic Warfare role, defending the northern flank of NATO. The last time that British troops had deployed to Norway was in the ill-fated WW2 expedition, following the German invasion in April 1940, resulting in some 4,000 casualties amongst the British, Polish, French and Norwegian Forces. Along with the lack of air support, logistical and other problems, the clothing and equipment had proved totally inadequate for the harsh weather conditions. Consequently, the deployment to North Norway planned for January 1971, Exercise Clockwork 71, was designed to be an exercise in which survival techniques, tactics and equipment could be trialled and developed.

Plymouth 1970

These memories commence within the walls of the Royal Citadel where we practised our skills for Norway in addition to attending lectures at Stonehouse Barracks with 45 Commando. Their Mountain and Arctic Warfare (M&AW) Cadre uncovered the mysteries of the 5 man and 10 man tents and the operation of naphtha cookers. Naphtha had a higher calorific value than petrol or paraffin and was therefore a more efficient fuel to carry in arctic conditions; the downside being that it had a very distinctive and pervasive smell. We also had to draw our Arctic clothing, which was based on a combination of Norwegian and Canadian experience. Canadian clothing was excellent but designed for use when snowshoeing.

The Norwegian clothing and equipment were more basic, but suitable for use when cross country skiing. The heavy Canadian parkas and *mukluks* (felt-soled boots based on Eskimo footwear) were excellent for the gunners but far too cumbersome for the OP parties. Whilst the design of the Norwegian ski boots dated from the 1940s, they were practical and better than anything we had in the British inventory. We were amazed by the wonderful quality of the Canadian 'long johns' and thermal vests, the Norwegian socks and

Officers and SNCOs of 145 (Maiwand) Bty, 1971

waterproof reversible green and white wet weather gear, and also by the ineffective plastic ski bindings. These bindings were a British design and were supposed to be used with ***mukluks***; they proved not only useless for skiing but were also responsible for numerous ankle and knee injuries. Memorably, we also practised helicopter ditching drills; this entailed sitting strapped into a mockup of a Wessex V cabin, which was suspended above a swimming pool and then dunked in at the deep end. Once underwater, you had to unbuckle your harness and feel your way towards the exit before swimming to the surface. As there were usually ten men on board, all wearing equipment, and as the cabin could be upside down or on its side, this was not as easy as it might sound.

Narvik 1971

Early in 1971, 145 Battery sailed with other elements of 45 Commando on the RFA[1] Sir Galahad from Marchwood in Southampton Water bound for Narvik in Northern Norway to participate in Exercise Clockwork 71. The prospect of being away from the family for more than three months was quite daunting anyway, but the long sea voyage accentuated the feeling of separation. The voyage took four or five days; the LSL (Landing Ship Logistic) was designed to have maximum carrying capacity for military equipment, combined with a shallow draught to enable the craft to unload close inshore; speed was certainly not the main consideration. Fortunately, the weather was calm as with their flat bottomed, bathtub profile LSLs were notorious for their poor stability. Once used to the continuous noise of the ship I became accustomed to my new environment, and found the voyage relaxing after the hectic packing of vehicles and equipment following the brief Christmas break.

The Royal Fleet Auxiliary Service, known as the 'Wavy Navy' because of the wavy design of the officers' sleeve 'rings' denoting their rank, provided a bar rather than a wardroom, and this was well patronised by all the military passengers. Towards the end of the voyage, the seas became rougher, and fewer and fewer people attended for meals or for drinks in the bar. On one occasion I found that I was the only person eating breakfast. Whilst I was fortunate to be unaffected by the swell, it did occur to me that the sea is quite boring, from a passenger's viewpoint. The North Sea was uniformly grey, in all directions and on every day. There was very little bird life and nothing to see but the sea and I wrote several long letters home, for posting on arrival in Norway.

Arriving in Norway, however, was anything but boring. We dropped some Marines off in Trondheim and then sailed further up the spectacular Norwegian coast. A blizzard was blowing when we arrived in Narvik and unloading the LSL proved quite difficult, and at times quite dangerous. We were 200 miles inside the Arctic Circle and there was no sun, just twilight and then darkness. When we eventually set off towards our destination, in poor visibility and driving snow, after a few hundred yards we managed to bury the nose of the Landrover in a snowdrift at the side of the road. There followed an unpleasant 45 minutes digging our way out, with the snow drifting around us and filling in the passage that we had just cleared with our snow shovels. Eventually clear of the harbour and with the snowstorm abated, we drove through the town with 10 or 12 foot banks of snow lining the streets.

The constant wind whipped horizontal plumes of snow from the top of the banks, and we made our way gingerly over 75 kms of snow packed roads to Sætermoen. The headquarters of the Norwegian Brigade North was at Bardufoss, 15 kilometres further north. It boasted a civil airfield as well as a military airbase, and a large garrison, which included the Field Artillery Battalion, known as the FABN, and an Infantry regiment, both based at Sætermoen. Nearby was a mountainous training area including the Sætermoen Artillery Ranges, and the town itself existed around the military, their dependants and the civilian support, such as teachers, doctors, shops, banks and bars. We were housed in a small work camp at a hamlet called Innset, a further 35 kilometres into the wilds, towards the Finnish Border. The camp had been constructed for workers on the Altevatn Dam, constructed a year or so earlier at the foot of the Altevatn Lake, a long snake like feature pointing Northeast towards Sweden and Finnish Lapland, where the boundaries of the three countries met at a point on a high, bleak plateau. The road to Innset was narrow and winding, providing an early challenge for the drivers; although, as the temperature dropped further inland, the road conditions became more predictable with our studded tyres

1. Royal Fleet Auxiliary - Sir Galahad was badly damaged by the Argentine Air Force in 1982, and the hulk was subsequently sunk off the coast of the Falkland Islands.

providing more of grip on the ice than on the fresh snow nearer to the coast.

Supporting the FABN (Field Artillery Battalion)

As this was the first deployment of Commando Forces to Norway since 1940, we had a number of important tasks to fulfil. With the help of Norwegian Army and Royal Marine instructors, we first had to learn how to survive and move in the Arctic. The Norwegian liaison officers appeared to have been born on skis whilst the RM instructors, from the Mountain & Arctic Warfare Cadre already had quite a lot of experience on which to call. We also had to try out our clothing and equipment to determine whether it was suitable for survival and for performing our operational role. Most importantly, we had to develop operational procedures to make the best use of our guns. The Commando role, in cooperation with the Norwegian Brigade North, was to stop or delay any Soviet incursion from Finland across the 'Lyngen Line', in order to give time for the NATO AMF(L) contingents to deploy from their European bases.

The FABN was equipped with US M109 155mm Howitzers with a range of about 16 kilometres. These tracked guns had good road mobility, powered as they were by Greyhound Bus engines, but limited over-snow capability, except on the flat, and North Norway has very few flat places. With the exception of the officers, the other ranks were all conscripts, serving for a total of nine months; comprising three months training and six months regimental service. The Sergeants, who commanded the guns, were selected after their initial three months training, given an additional three month Sergeants' course and then completed three months regimental service. If good enough, and willing, they were then selected for officer training. Despite their relatively brief training, the Norwegian gunners were very competent, but, perhaps out of necessity, their drills were fairly ponderous and inflexible.

Our Italian 105mm Pack Howitzers delivered a 35lb shell, less than half the weight of the M109 shell, and had a range of only 10 kilometres. The guns, however, were fitted with giant skis, which allowed them to be towed over snow. Unfortunately, the only gun towing vehicles we had at the time were Snow Cats. These had reasonable over snow capability, but their Volkswagen engines were not man enough to tow the guns up steep slopes, particularly if they were carrying ammunition as well. Nevertheless, the guns could be deployed further off the road than the M109s and this compensated to some extent for their lack of range. The Pack Howitzers, designed originally to be broken down into their component parts and carried by mules, were light enough to be deployed by the Wessex V helicopter, the then standard workhorse of the RAF and the Fleet Air Arm. The Snow Cats were also airportable. Given good conditions, the guns could be deployed to any suitable gun position, no matter how far off the road. This airportability provided tremendous tactical flexibility but at the same time was dependent on the weather and on aircraft availability. The Royal Navy pilots were extremely good and would readily fly in marginal conditions but were often limited by poor visibility or the danger of icing. Another factor, which we learnt to live with, was the effect of wind chill on the gun crews caused by the rotor downdraught at the predictably low temperatures that were encountered on a regular basis.

Snow Cat

Skiing Equipment

Together with my fellow Troop Commander, I was designated as a Trials Officer by the BC, with the remit to produce reports on every aspect of our training and operational procedures. The first priority was to ensure that everyone could put into practice the drills that had been taught back in Plymouth. Those who needed to, were given the rudiments of cross country skiing on their heavy 'NATO Planks' as our wooden skis were affectionately known and also practised in pulling their 'pulks'; aluminium and fabric sledges to carry equipment that was too large or too heavy for a Bergen. In fact, everyone was put on skis at some stage but as the gun numbers were only provided with plastic bindings for their *mukluks*, there was a limit to what they could achieve, other than numerous sprained ankles and twisted knees. The Canadian *mukluks* proved very popular, however, as they did a very good job of keeping feet warm in low temperatures. On the other hand, the combination of Norwegian leather ski boot and adjustable metal sprung binding gave excellent control when skiing, but the boots did little to keep the wearer's feet warm. The leather soles attracted the cold like a magnet and when you had the opportunity to remove the boots there was usually frost inside the toecaps, even after a hard day's skiing. It was recommended practice to allow your boots to share your sleeping bag in order to stop them freezing solid overnight, but they made uncomfortable bedfellows!

The Author on 'NATO Planks'

Sleeping Arrangements

Despite the lack of sun, the cold conditions could almost be pleasant. When the temperature dropped below about -5˚C there was usually no wind, and the air was pure and dust free in the freezing temperatures. The temperature was quite often below -15˚C, at which temperature the nostrils start to freeze, but so long as you had the right clothing on, life proceeded quite normally. When the temperature dropped below this level, the air seemed to sparkle and the frost on the branches of the ubiquitous birch trees was quite beautiful. Living under canvas in these conditions was possible, but not very comfortable. In order to keep the temperature in the tent at a comfortable level it was sensible to have as many bodies in together as possible, but additional measures were still necessary. Usually, a pressure lamp was kept alight inside the tent to keep the temperature at about 0˚C. If there was a naked flame inside, however, then someone had to stay awake to counter the fire risk. There was always a sentry outside but, in addition, someone had to be awake to keep an eye on the heat source, and to refill the lamp outside the tent, if the fuel ran out. Staying awake in a freezing tent is not an easy

task, although fear of death by incineration helped to concentrate the mind. Those lucky enough to be tucked in their sleeping bags could enjoy the refreshing shower of ice crystals that fell back onto their faces as their breath froze in the night air. Unfortunately, hot air rises and whilst the top of the tent was probably reasonably warm, the bottom could remain stubbornly below freezing

Whilst sleeping was a problem, getting up could be even worse. It was always difficult to prise oneself out of a cosy sleeping bag, and the Arctic bag was very good, but the bigger problem was rolling it up, packing the bergen, folding up the tent and loading the pulk. This was difficult because it was often necessary to remove one's gloves to close your bergen or do up the straps securing the tent to the pulk. It was a classic vicious circle: taking off your gloves allowed your hands to get cold; the colder your hands the longer it took to fiddle with straps and the colder your hands became….. On one memorable morning we had practised sleeping under our tent sheets. These were canvas sheets, similar to a ground sheet, that could be buttoned together to form a bivouac for however many people were in the sleeping group. As already mentioned, it was always better to have as many bodies as possible to take advantage of body heat.

When employing tent sheets, and therefore travelling light, you were unlikely to have a pressure lamp with you and a candle was substituted to keep the temperature at survival level. On one occasion, thoroughly cold on getting up, as candles do not possess enormous calorific value, and on a typically depressing grey twilit morning, as there was no sun to welcome the day, we found that there was a light breeze. The temperature was -34˚C and the air should have been still. But it wasn't. Unbuttoning half a dozen tent sheets was impossible with gloves on and, not surprisingly, the large metal buttons were cold to the touch. Within minutes, our hands were frozen and almost too numb to manage the task of putting the gloves back on, fixing skis, hefting Bergens and setting off. My fingers were very painful and as we had a downhill stretch, I withdrew them from the fingers of the gloves and worked them hard in my palm to get the circulation flowing again. I didn't bother to use my ski sticks but tucked my hands under my armpits and relied on balance and my improving technique to get me back without 'poling'. Out of the six of us, two suffered quite bad frostbite in their fingers, and although no lasting harm was done, they suffered considerable discomfort for the rest of their time in Norway.

One of the most effective items of equipment was the reindeer skin sleeping mat. Reindeer hair is hollow and has wonderful insulating qualities, but if the skins are cured the hair begins to fall out. If they are not cured the hair stays put but the skins begin to smell when warm. The skins rolled up neatly to fit on top of the Bergens but were not quite long enough to provide insulation for all the body. Feet were largely left to look after themselves unless you were very short. At the end of the season all the skins were gathered in and burned, but their memory lingered on. They contributed to the overall accumulation of smells that permeated every item of clothing and equipment. This was a blend of unwashed bodies, grubby sleeping bags ("big green maggots"), food, naphtha and exhaust fumes. Keeping clean was another challenge, with only limited washing possible inside the tent, because of the amount of kit and people inside and also due to the shortage of water. Water came from melted snow; there was no alternative since jerrycans froze solid. For the same reason, and to save weight, our food was mainly dehydrated, so water was also required for cooking, and of course for drinking, usually in the form of tea or coffee. We had excellent showers at Innset, of course, but if an exercise lasted for more than three or four days in the field, I found it necessary to take myself off to somewhere private, out of the wind, in order to freshen up the more intimate parts of my body with snow. Providing that you started well fed and feeling warm, the subsequent glow of satisfaction was well worth the effort.

Gun Towing

Amongst other trials, I tried transporting a dismantled Pack Howitzer in the back of a Snow Cat. The traction of the Snow Cat was much improved over its performance when towing the gun, although the limited payload meant that very little ammunition could be carried, but trying to re-assemble the gun proved problematic. The tolerances were very fine, and the unavoidable powdering of blown snow made it very difficult to slide one piece into another. Gloved hands, essential for handling heavy blocks of freezing metal, made the operation even more difficult. Having stripped the gun down again for the return journey, it was then re-assembled in the shelter of the gun sheds. Here, the remnants of the snow melted, then froze overnight, ensuring that all the moving parts were iced up on the following morning. The trial proved that transportation of the Pack Howitzer in pieces was entirely possible, but not really worth the effort other than in exceptional circumstances.

The guns on the move

Clothing

As our skiing gradually improved, we also began to work out what clothing we needed and what was superfluous. Our parkas were a luxury item, too heavy to carry and too hot to wear when skiing. Thermal 'long johns' were brilliant for keeping the legs warm when stationary, but the thermal vests also proved too hot for skiing. Unaccustomed to carrying heavy bergens, whilst cross country skiing, we all used a great deal of energy and keeping cool was almost more important than keeping warm. Dehydration was a real problem, particularly as all the liquid for cooking and drinking came from melted snow. On one of our trekking exercises, the BQMS decided he would give the battery a treat and bring out some fresh food; bread and apples. After an hour or so of exposure to temperatures below-20˚C, both commodities became frozen solid and completely inedible. I took a very attractive looking loaf to bed with me but having wrapped it in a shirt and placed it under my knees, it was just as solid in the morning, and defeated attempts by the sharpest knife to produce the wherewithal for a much desired slice of toast.

The Norwegian Army was issued with an excellent winter shirt with a polo neck and zip front. We all purchased these from the FABN as they were far superior to our own 'shirts khaki flannel', which had hardly changed in design since the 1950s. They became standard issue on following deployments to Norway. Another popular item was the white 'Arctic sock', relatively expensive to replace but well worth losing in order to keep for personal use. I still have several pairs in regular use …… 50 years later.

Live Firing

The most important part of our training was live firing, which took place on Sætermoen Ranges. The scope for deploying the guns was fairly limited, but we were able to practise helicopter deployment as well as the more conventional towed deployment. There was, however, plenty of scope for deploying the OP parties, both by Snow Cat and on skis. The skiing provided an excellent way of keeping your feet from freezing, or alternatively of thawing them after staying in the same OP for hours on end. I found that my hands soon became quite inured to the cold; it was impossible to handle a talc covered map and plastic 'Protractors RA 6 inch' when wearing gloves. Chinagraph pencils did not work well in the cold, and like torch batteries, they needed to be kept close to the heart to keep them warm, if they were to work at all. In addition, there were many other actions that were best carried out with bare hands; retrieving pencils, map reading, using binoculars and a compass, encrypting or decrypting map code, tuning the radio or just consulting instructions. Yet, when a wind was blowing, it was impossible to leave the hands uncovered for more than a few seconds. This surely reinforced the old saying that "everything takes longer in the cold."

Live Firing

The difficulties of operating in the cold were not only experienced by the OPs of course. Guns had to be laid for line, and moving guns on their skis through snow was not always an easy task, and fuzes set. Cold shells, usually covered in slippery snow, were difficult to handle and also difficult to carry through deep snow. Sometimes winds could whip up a white out, preventing gun layers from seeing their aiming posts, or stopping the safety officers from clearing the guns for firing. Meteorological conditions had a dramatic effect on ballistics with low temperatures reducing ranges dramatically and making fuzes misbehave in an unpredictable way; possibly due to the combination of temperature effects on the mechanism as well as the difficulty of setting the fuzes accurately. Whilst the OP waited impatiently for his fire order to be carried out, the guns were working against all sorts of unseen difficulties. Not least of these difficulties was keeping the gunners alert and motivated in such extreme and often unpleasant conditions. When the shells did arrive, however, they certainly made their presence felt.

The OPs at Sætermoen were higher than the gun positions and often the shells were only clearing the OP ridge by a few hundred feet. Consequently, in the clear dense air, they sounded like express trains rushing overhead. The fall of shot was usually clearly marked, having left a black sooty patch on the clean white snow; much easier to see than the more common puff of grey smoke that could be whisked away in seconds. One problem of firing over snow was the difficulty of estimating distance and to prove the point we carried out a 'danger close' shoot. This involves firing at a distant point and

gradually moving the fall of shot closer and closer to the observer. You know when you are close enough when the blast punches you in the chest and the detonation makes your ears ring! More alarming was observing the inaccurate airburst fuzes detonating overhead rather than six hundred metres to the front as intended. There were two types of fuze: clockwork and VT (variable time) which was radar

On the gun position

controlled. The clockwork fuzes were difficult to set accurately in the cold whilst the VT fuze could be triggered if it passed closer to rocks near the shell trajectory, a common occurrence at Sætermoen. A manual setting was applied to prevent the fuze being armed too early in the flight path but even so, an elevated OP, closer to the trajectory than on normal, less mountainous ranges, always provided more than a frisson of excitement!

Skiing to Lapland

On one free weekend, four of us decided to ski to the Finnish Border. This involved a lengthy approach march and a very steep climb before arriving on the Lapland plateau where the borders of Finland, Sweden and Norway all join at a point. The weather was perfect; no wind, blue skies and glistening powder snow so that it was effortless to ski on and beautiful to look at, but there was nothing else to see. The route down, however, appeared steeper and icier than the route up, for some reason, and it was too steep to do anything other than traverse carefully back and forth across the slope, trusting in the edges on our skis. Turning at the end of each traverse was performed with extreme deliberation, planting the sticks uphill, lifting one ski and turning it through 180˚, lifting and turning the other ski and then carefully setting off again. There was certainly no room for error and any slip would almost certainly have been fatal on the icy slope. In such conditions, miles from help and with no communication, you don't make mistakes. It reminded me of rock climbing on exposed pitches. There is no point in imagining disaster; you just keep a clear mind and stay focussed on the task in hand. We were very relieved to get to the bottom without mishap having negotiated a very long 60˚ slope and descending at least a thousand metres in about a quarter of a mile. It was a great day's skiing, but we were chastened by the experience and said little about our adventure once we were safely back at camp.

Return Voyage

When the time came for the return home in late March, the weather broke, and we sailed into Force 8 Gales. The LSL had to change course, having suffered some external damage, and our voyage was extended by 36 hours. My cabin reeked, as I did, of reindeer skin, naphtha and three months' worth of dirt and sweat, and when I finally returned to my quarter, I undressed in the garage rather than bring the stench into the house. Most memorable, however, was playing darts in the Mess, with the board swinging some 60˚ either side of the vertical. The Skipper came to pay a social call one lunchtime and demonstrated his years of seagoing experience in the most graphic way. Admittedly, he had a low centre of gravity and he was built like one of those tops that can't fall over. He was able to stand feet astride, rooted to the spot, holding his pint in his fist with the ship rotating around him, the deck rising to meet his beard, receding and then coming up towards the back of his head: without him spilling a drop! On arrival in Southampton Water, we had to wait several hours before berthing and we discovered that our darts were not nearly so accurate without the North Sea swell.

Arbroath

Shortly after my return from Norway, it was time to pack up and move to Arbroath. The former Royal Naval Air Station, HMS Condor, had become the new Condor Base for 45 Commando Group and I was on the Advance Party to take over accommodation for 145 Battery. Camp routine was most enjoyable; we were left alone by 45 Commando to do our Gunner thing, and to a certain extent were able to forget about 29 Commando RHQ, safely back in Plymouth. Our nearest artillery range was at Otterburn, just south of the Border in Northumberland. As we were Army but supported part of the Royal

The Author on Otterburn Ranges with OP Party and 'Jankers'

Navy we had numerous bosses of course; 3 Commando Brigade in Plymouth, UK Land Forces (UKLF) in Wilton, Flag Officer Scotland & Northern Ireland (FOSNI) and HQ Scotland in Edinburgh. We considered ourselves an independent battery whereas the Citadel only allowed that we were 'detached'.

Our main role was to support 45 Commando in their Arctic warfare role, but we also provided the strategic reserve for UKLF. Consequently, we had to remain at a high state of readiness, usually taking block leave when not on standby for operational deployment. Most mornings started with fitness training, typically speed marching six or nine miles around the local countryside. Because every man was a volunteer and everyone had been through the same selection

process, there was a tremendous camaraderie within the battery, and there was very little complaining. Everyone had joined knowing what was involved in terms of fitness and the certainty of lengthy separation; even the wives were more independently minded, expecting to look after themselves rather than being spoon fed by a regimental families' organisation.

The Author leading the Bty through Abroath on return from a NI tour

NATO Maritime Exercise 1972

Later in the year we were involved in a major NATO maritime exercise in the North Sea, and I joined HMS Albion at Rosyth where I embarked for three weeks afloat. Albion met up with numerous other NATO ships, including a US Navy contingent, providing me with my first experience of a large naval force at sea. It was an impressive sight with vessels of all shapes, sizes and nationalities stretching to the horizon in all directions. Additional interest was provided by the occasional 'RAS' (Refuel at Sea) when a tanker would come alongside to allow fuel to be taken on board and stores to be transferred. Otherwise, whenever exercise 'action' occurred, we passengers were confined below decks, with the company of dim red lighting to aid night vision. There was plenty to do however; deciding the 'chalk order' and loading plan for a helicopter deployment in preparation for an unopposed amphibious landing on the west coast of Norway.

Arriving off the coast west of Trondheim we were greeted with incessant rain and the low clouds that made flying very difficult in the mountainous fjord terrain. Nevertheless, although visibility was marginal, the Naval Air Squadron succeeded in flying the battery ashore and we deployed in dripping birch woods for about 72 hours; relieved to be on terra firma after our voyage and the very fast and very low flight around the cliffs of the fjord and through the trees covering the surrounding hills. In addition to the Navy Wessex 5s, we were also provided with air support from the US Navy, who were able to fly complete gun detachments in CH53 "Jolly Green Giants" and Chinooks. The downdraft from these aircraft could knock you off your feet if you were caught unawares, although with the noise they made, it was unlikely that you wouldn't hear them approach!

In the company of numerous high ranking NATO officials, I also witnessed the landing of a US Marine Corps Engineer Battalion, when an impressive array of amphibious vehicles motored across the fjord from their mother ship, landed on the beach and disappeared ashore. At least, that was the plan. Inevitably, one of the heavier vehicles became stuck in the mud and an enormous BARV (Beach Armoured Recovery) was summoned to rescue the unfortunate casualty. With equal inevitability, only to be expected at high profile demonstrations, the BARV also floundered in the mud and became equally immobile. I expect that eventually, the BARV would have winched itself out, assuming a large enough rock could be found as an anchor point, but when the spectators departed the two vehicles were still firmly embedded in the mud, quite unable to hide their embarrassment.

The larger the exercise the less movement is likely to be involved as large exercises are mainly about getting the right military assets in place and going through the motions of deployment. Consequently, once deployed, our role was to stay hidden from air reconnaissance and to ensure that we answered the radio when required. This sounds rather boring but can make for quite a pleasant, even useful, change. Living in the field is something that soldiers need to practise, particularly when they are on light scales in adverse conditions. These all too infrequent intervals of relative peace can provide a useful opportunity for individual training and possibly more importantly for the swapping of yarns, experience and ideas and generally getting to know the members of your team. There is also a certain amount of comfort in knowing that you are being paid for waiting patiently, catching up on your reading and getting a good night's sleep. When the exercise was over and the battery was recovered to Albion, we were given an amazing 'Cooks Tour' of the Norwegian coastline, sailing sedately along the fjords, fortunately in better weather, to admire the spectacular scenery. I am sure that there was also a political aspect to this since at that time Norway was notably ambivalent about NATO. Thus, the sight of a large Royal Navy Commando Carrier steaming close offshore should have provided excellent 'photo opportunities' for the local press and reassurance that Norway was an important ally and valued member of the alliance.

Post Script

After taking part in several more deployments, both in the Orkneys and back to Norway, including Clockwork 73, and interspersed with emergency tours in Northern Ireland, I then attended the two year Staff College course at Shrivenham and Camberley. Whilst attending Division 1 at RMCS I wrote a paper on the need to upgrade our over snow capability by adopting the BV 202 Bandwagon, then in use by the FABN, as gun towers and OP vehicles. Following a tour in Whitehall, I returned to Norway initially as Executive Officer within the Allied Mobile Force (Land) (AMF(L)) Force Artillery in 1978 and subsequently as Battery Commander of 13 (Martinique 1809) Battery, the UK's contribution to the Force Artillery, for the final two years of their 13 years in the AMF(L) role and I was delighted to discover that the BV 202 had indeed replaced the Snow Cat. But that's another story.

An Updated Strategy for Royal Artillery Heritage

By Brigadier Rob Alston MBE

This article, written by the chair of the Royal Artillery Heritage Committee, marks the publication of the 2025 Royal Artillery Heritage Strategy, which seek to bring further coherence to the governance and coherence of Royal Artillery heritage. It describes the origins of the strategy, explains its key elements and outlines how the heritage community intends to take it forward from this year.

Photo and bio on Page 10

Introduction. The heritage of the Royal Artillery is of immense value; not only to the Regiment, but to the wider nation as well. Our regimental story is closely linked with that of the nation and is therefore of broad interest and far-reaching relevance, touching most British families in one way or another over the last 300 years, not least during the industrial wars of the first half of the Twentieth Century. The value of heritage to the Gunners as a military organisation is also broad; it informs how we think, how we fight and perhaps most importantly, why we fight. We therefore must continue to give due consideration to how we protect and engage with our heritage, so that it continues to contribute to the core purpose of the Regiment today and in the future. How we will do this is captured in the new, revised Royal Artillery Heritage Strategy, whose vision is that the Royal Artillery enhances its operational effectiveness by understanding, valuing, protecting and using its heritage to develop its fighting power. This article explores how the Regiment will do this in an increasingly more organised, deliberate and effective way than in the past.

Army Heritage. Heritage is a powerful conceptual and practical asset for the Army with direct impact on the moral component of fighting power. It underpins the Army's distinct ethos, character, identity and purpose. It displays the Army's service and its unique contributions to the culture, traditions, history and character of the United Kingdom, and explains the Army's standing in the nation. (Reference: AGAI 100: Army Charities Policy).

Royal Artillery heritage. Royal Artillery heritage is 'those elements of the history of the Royal Artillery which we can perceive today through stories, artefacts, buildings or traditions'. The scope of Royal Artillery heritage is expanded in the box on page 34 and those involved in the Royal Artillery heritage community are listed in the box on page 35.

Origins. The first version of the Royal Artillery Heritage Strategy was published in 2019 as part of work initiated by the 2018 Royal Artillery Strategic Review to update Regimental governance and provide greater strategic direction for all aspects of Regimental life. It successfully laid the foundations which have been built on by the 2025 version, explaining why Royal Artillery heritage is important and what it is for. It led to an improvement in heritage governance and greater coherence in how it is funded. The significant change in the second iteration, published in 2025 and described in this article, is that it is more explicitly focused on the role of heritage in supporting the Regiment's operational effectiveness.

Context. Three years after the Russian invasion of Ukraine and at the start of President Trump's second term of office, the world, and Europe specifically, feels more unpredictable than it did in 2019. Even after recent announcements about defence spending increases, military budgets remain under huge pressure (both from the rising costs of defence capabilities and by competing demands on public spending) yet the threat of state-on-state conflict feels closer than it has done since the end of the Cold War. So there is a strong case that there is a requirement for the Royal Artillery to focus on its preparedness to meet the challenges of war. As the Master Gunner said in his preface to the 2025 Heritage Strategy, the Royal Artillery is "justifiably proud of our 300 years of warfighting prowess, we should take every opportunity to mobilise our Regimental assets in support of our core purpose: to find and strike at range". The 2025 strategy seeks to help do that by demonstrating the link between heritage and operational effectiveness and therefore setting the conditions for heritage to make a more meaningful contribution to the Regiment's core purpose.

Purpose. The Royal Artillery Heritage Strategy exists to increase understanding of the value of heritage to the Regiment and, through collaboration between the Regiment and those involved with heritage delivery, to realise the benefits that heritage activities can provide to the serving regiment and the wider community that supports it. In doing so, it will allow prioritisation of limited Regimental resources against those heritage activities which are of most value to the Regimental community, whilst also identifying how the Regiment can better leverage its heritage to greatest effect. All this is in support of the strategy's vision which is that the Royal Artillery enhances its operational effectiveness by understanding, valuing, protecting and using its heritage to develop its fighting power.

The Regiment's Heritage. The Royal Regiment of Artillery has a history that extends over 300 years. That history, and the histories of thousands of members of the Regiment, are evidenced and illustrated by a world-class collection of documents, books and artefacts primarily (but not exclusively) held in the Royal Artillery Collection, held, cared for and managed by the Royal Artillery Museum. The Regiment's history remains vibrant and familiar through its traditions and by those who study and communicate it to others through papers, books, lectures, social media and re-enactments. It is also inextricably linked to the evolution of the science of artillery and the development of the artillery system of technologies, again both brought to life through the Royal Artillery Collection. At a time when the Regiment is recapitalising to meet a growing, but very familiar, threat in Europe and new threats further afield, engaging with history and the Regiment's wider heritage should both be enjoyable for members of the Regiment and play an important educational role in preparing them professionally for the very real technical, conceptual and human challenges that they face today and in the future.

The collection held by the Royal Artillery Museum contains many of the key elements of our heritage. It has evolved over two and a half centuries from a number of collections that were previously held separately:

The Royal Artillery Collection. The collection was established in 1778 to support Gunner training, located at the heart of the Regiment in Woolwich. With a strong technical focus, it opened to the public in 1820 at the Rotunda on Woolwich Common, its scope expanding to include a wide range of international weaponry and related items from all periods. While retaining an important role in training and Regimental life, the Museum of Artillery at the Rotunda became a popular visitor attraction, with over 80,000 visitors each year at its peak. The national importance of the Rotunda collection was recognised in the 1990s when it was one of the first collections to be awarded Designated status under the scheme now operated by Arts Council England.

The Regimental History Collection. This collection was established in the 19th century, and originally held in the Royal Artillery Barracks at Woolwich. It provides a wealth of important supporting material such as uniforms, paintings and personal artefacts that represent the history of the Royal Artillery and the personal stories of the men and women who have served in the Regiment.

The Medals Collection. The medal collection also originated in the Royal Artillery Barracks at Woolwich and is now one of the largest and most significant of all Army medal collections. It contains some 11,000 items, with examples of nearly every type of medal or decoration that has been awarded to a member of the Royal Artillery. These are held in perpetuity as a memorial to all those who have served in the Regiment.

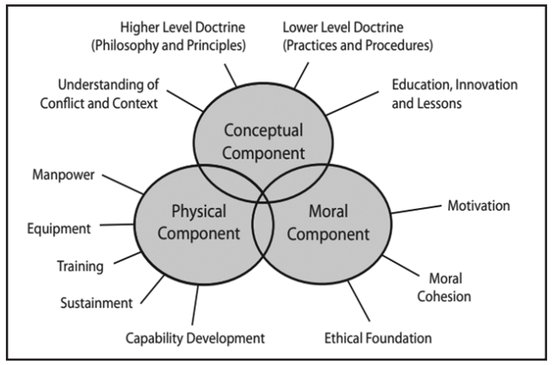
The Archive and Library. The combined archive and library is an exceptional resource containing technical, historical, regimental and personal documents and books. It is one of the largest military museum archives, with over a kilometre of shelving. It includes official records of Royal Artillery units (such as the Great War and WWII war diaries) and the battery digests covering the pre-war and inter-war years. It also contains back copies of the RA Journal and Gunner Magazine. Technical publications held include gun handbooks, training volumes and documents recording testing of different gun types and barrels. Much of this material was collected by the Rotunda Museum, contributing to its original purpose as a training collection for the Royal Artillery. The Archive also includes the personal papers, letters, memoirs, drawings and photographs donated by many individual Gunners, or their descendants, ranging from the diaries of Alexander Dickson (Wellington's head of artillery during the Peninsular War) to Gunners serving in India in the Nineteenth Century, in the trenches of the Great War, in the jungles of Burma, and beyond.

In 2001 the Firepower Museum at the Royal Arsenal brought together the artillery collection from the Rotunda with the regimental history collection, medal collection, library and archive. The Designated status was later extended to include all of these elements, which together comprise the most significant collection of artillery and related material in the UK.

Heritage Value. The value of Royal Artillery Heritage is defined in the 2025 Strategy by its positive impact on the

The Journal of the Royal Artillery Royal Artillery Heritage

operational effectiveness of the Regiment, which is defined (in accordance with our military doctrine), using the components of fighting power (moral, physical, conceptual). Heritage does not, of course, have a decisive impact on fighting power in isolation, but the strategy argues that it can (and must) make a useful contribution if the Regiment is to be as effective as the nation needs it to be. Heritage also has wider value, including its positive impact on potential recruits, families, veterans and the wider community. Engaging with heritage brings joy, stimulates, inspires and educates in many ways. There is also a moral imperative on a cultured society to preserve and enrich its heritage for its own sake. But for a military organisation, it is



reasonable and appropriate that our focus for heritage should be on its contribution to our operational effectiveness.

Strategic Objectives and Outcomes. The vision of the Royal Artillery Heritage Strategy will be achieved through the coordinated delivery of heritage activities which collectively support three strategic objectives. Each strategic objective describes the contribution of heritage to one of the three components of fighting power. The strategic objectives will be met through the delivery of a series of heritage outcomes, which are specific benefits that the heritage community can deliver (or contribute significantly towards) for the Regimental family. Collectively, they articulate a detailed programme for how RA heritage can make a tangible, positive impact on the fighting power of the Regiment, by enhancing the will to fight, educating our people on how to fight, and developing the equipment, tactics and techniques to allow them to fight.

Strategic Objective 1: Conceptual. Royal Artillery Heritage will enhance the conceptual component of the Regiment's fighting power, in support of the Commandant of the Royal School of Artillery and other leaders responsible for training, education and development. The intent is that members of the Royal Artillery will achieve operational decision advantage by applying relevant historical lessons to help them solve contemporary challenges. The Royal Artillery heritage community will contribute to this by working collaboratively with trainers and the Chain of Command to ensure that:

a. Royal Artillery individual and collective training benefits from historical case studies, supported by documents, artefacts and other media, that identify operational lessons and bring doctrine and TTPs to life through real-life examples from the Regiment's history. The establishment of the new RA Training into Doctrine Steering Group (TRADOC SG) provides a useful mechanism to identify opportunities for heritage to support contemporary lessons.

b. Royal Artillery education is supported by battlefield study resources that identify relevant tactical and operational lessons from the Regiment's history and bring them to life using relevant artefacts and documents from the Collection.

Critical to the ability to support the conceptual component of fighting power is the delivery of the Royal Artillery Museum project, which will conserve and then operationalise the collection of documents and artefacts to tell the stories of the Regiment and those who fought in it through education, outreach and engagement.

Equally important, and dependent on the evidence contained in the Royal Artillery Archive, is that our heritage is underpinned by Regimental, formation, unit and sub-unit histories that are authoritative and accurate. These must provide a compelling summary of the activities of those organisations and those who served in them, ensuring that our heritage is based on history, rather than mythology.

Strategic Objective 2: Moral. Royal Artillery Heritage will enhance the moral component of the Regiment's fighting power, in support of the Regimental Colonel and other leaders responsible for our people. The intent is that individual morale, team cohesion and regimental comradeship is enhanced and underpinned by awareness of, and respect for, the achievements of our predecessors. The Royal Artillery heritage community will contribute to this strategic objective by working collaboratively with the chain of command and veteran organisations such as the Royal Artillery Association to ensure that:

a. Members of the Regiment are inspired to serve, fight and win through their knowledge of historical examples of Royal Artillery officers and soldiers who embodied the Values and Standards of the British Army. At the heart of this is the way in which the Regiment attracts new members (including at RMAS) and, critically, how we imbue our soldiers and officers undergoing initial trade training in 14th Regiment Royal Artillery with the values and standards of the Royal Artillery, and how we prepare them for the challenging realities of war.

b. Royal Artillery comradeship across the serving and veteran communities is enhanced by the commemoration of notable historical events and actions, through parades, functions and other events. With the battery at the heart of our community and the battery honour title and its associated history central to the character and ethos of the battery, our comradeship is fundamentally based on our shared history. Battery history rooms, battery birthdays, and other commemorations remain vital to Regimental life and must be valued, maintained and supported.

Strategic Objective 3: Physical. Royal Artillery heritage will enhance the physical component of the Regiment's fighting power, in support of Assistant Head Deep Effects, the chain of command, and all those working in capability development and warfare development. At a time when the Royal Artillery is undertaking a major recapitalisation programme, and near to the start of a decade of new equipment for the Regiment, the Royal Artillery heritage community will support the development and employment of those new Royal Artillery capabilities by offering insight from its unique access to the historical research and experience of the development of the artillery system of systems. The Royal Artillery heritage community will contribute to this objective by working collaboratively with those on the Artillery Staff employed in DE&S (Defence Equipment and Support) and Army HQ, in DSTL (Defence Science and Technology Laboratory), and those in industry to ensure that:

a. The Royal Artillery Museum's unique collection of weapon systems, ammunition, fuzes and technical documentation is accessible, primarily in the Museum, to those with an interest in artillery technical history.

b. DE&S, Army HQ and industry are aware of the Royal Artillery Museum as a resource and use it to inform capability development.

c. LWC, formations and units are aware of the Royal Artillery Museum as a resource and use it to inform warfare development and to refine the concepts of employment for new capabilities.

Enabling Activities. Whilst the Strategic Framework is a logical explanation of how heritage should support the Regiment, it will fail without the enabling activities being given due support. The strategy therefore identified those enabling outcomes that will contribute to good governance and management of the heritage community, which in turn will maximise the community's contribution towards the aims of the strategy.

Governance, Administration and Funding. The strategy will promote the effective governance, administration and funding of heritage outputs. The lead on this outcome is the Royal Artillery Heritage Committee, which is a sub-committee of the Royal Artillery charities Board of Management. The RAHC is the gearing between the wider Regimental governance and those involved in delivering heritage activities, specifically the Royal Artillery Museum and the Royal Artillery Historical Society. The RAHC seeks to cohere the activities of the Royal Artillery heritage community in support of the strategy and to ensure good governance across the community. It also seeks to support RAM to maintain the Collection's Arts Council England Designated status.

The Royal Artillery Museum. The strategy depends on appropriate access by the Regiment and the wider community to our heritage. The most important enabler is the Royal Artillery Museum (RAM). RAM is a charity that exists to care for, develop and make accessible the RA Collection, which is held in the ownership of a separate trust operated by the trustees of RAM. RAM's Vision is to be the nation's centre of excellence for artillery heritage. RAM undertakes a wide range of museum and archive activities from interim facilities in Larkhill, Netheravon and Amesbury, while taking forward the project to create a new museum close to Larkhill. The new museum will be delivered by RAM with the full support of the Regiment. The new museum will return the Royal Artillery Collection to public display close to the home of the Regiment, securing its preservation for future generations and revitalising its contribution to Gunner training and regimental life. It will be an exciting and dynamic hub for Gunner heritage, providing a focus for education, learning, volunteering, participation, military-civilian integration, community activities and events.

Digital Access. Much of the Collection, particularly the Archive and the catalogue can (given time and resources) be digitised and made available online, alongside a growing body of excellent digital learning resources, academic scholarship and papers created by the RAHS, individuals and other organisations. The new Royal Artillery website will soon include a section on the Regiment's heritage, providing a useful link for the RA community to relevant online content, including webinars by the Royal Artillery historian and link to the RAM website. Increasing online content is an important, but resource intensive activity for the future health of Royal Artillery heritage.

Role of the RAHS. Maybe the most compelling way of the Regiment accessing its heritage is through the telling of its stories by passionate and engaging speakers. The regular lectures by the RAHS and similar events hosted at local levels are therefore critical to enhancing the accessibility of our heritage. The RAHS therefore plays an essential role in the Regiment's heritage and 2025 sees an exciting innovation with the first 'Lefroy Lectures' hosted by 4th Regt Royal Artillery at Topcliffe, extending the reach of the RAHS away from Larkhill which, along with the increasing number of lectures delivered and available online, will increase access and engagement.

Mobilising Participation. RA heritage is supported and enriched by professional and amateur Royal Artillery historians, archivists and volunteers, including the official Gunner historian. The lead for this sits with the heritage community organisations, who between them have cultivated a dynamic and growing pool of professionals and volunteers, actively engaged in the Regiment's heritage.

Engagement with the Regiment. There is real appetite from the heritage community to engage with the serving regiment more meaningfully. The case study in the box on page 35 demonstrates how the Regiment can gain real value from engaging in its heritage, not least as so much of the Regiment is now within easy reach of the Museum at Larkhill and the Archive. To encourage this, a network of regimental officers who are passionate about history and heritage will be supported by the heritage community to help the Regiment realise the benefits of its heritage and ensure that it is being both captured and conserved for the future. With unit historical returns no longer required by the Army (less for operational records), the Royal Artillery will need to work harder to ensure that its activities, much of which are well publicised on social media, but not in more formal records, are captured to provide the 'golden thread' of historical continuity.

Routine Funding. Heritage is not a 'free good' and the Regiment acknowledges this in its annual funding of heritage activities and of heritage development. The RAHC coordinates bids from across the heritage community for Board of Management funding, through an annual funding exercise each autumn. The RAHC will publish an annual Royal Artillery Heritage Plan that sets out the main activities to be funded each year. This will clearly articulate how that funding is being used in support of the Royal Artillery heritage strategic objectives.

Generating Income. Royal Artillery heritage must minimise its financial draw on regimental charities by optimising monetisation opportunities. Where possible and appropriate, public engagement with Regimental heritage should be leveraged to raise money to offset some of the cost of the enterprise, building on the modest income streams generated by, for example, the Archive and sponsorship of gate guardian conservation. The first

step towards this is the delivery of the museum project, which will provide a stable base from which to seek future commercial opportunities.

Conclusion. The 2025 Royal Artillery Heritage Strategy seeks to maintain the momentum of the 2019 version, whist creating a better understanding of the role of heritage in supporting the Regiment. It does this through the prism of operational effectiveness and the components of fighting power, making a compelling case that will inspire members of the Regiment to engage in its heritage. It will also encourage and support members of the heritage community to continue to deliver their vital work, so much of which is provided only on the basis of good will and regimental spirit, and for which the Regiment is rightly very grateful.

With grateful thanks to Martin Harvey and Siân Mogridge of the Royal Artillery Museum.

Scope of RA Heritage

The following are in scope of Royal Artillery Heritage Strategy.

Tangible

a. Examples of Royal Artillery equipment, uniforms, weapons and vehicles, including all elements of the artillery system, held in the Royal Artillery Collection and by other heritage collections.

b. Documents and digital content held in the RA Collection, libraries (various), online (military and civilian) and regimental, battery and private collections, including battery histories, maps, war diaries, magazines, operational documentation and the official RA history, related academic scholarship and wider publications about the development and employment of artillery.

c. The Royal Artillery Museum, as the repository for the Royal Artillery Collection and the focus for public and Regimental engagement with it.

d. Buildings, places and infrastructure which feature in Gunner History, including the Central Messes.

e. Medals earned by members of the Royal Artillery, including those in the Royal Artillery Memorial Medal Collection.

f. Memorials to, and graves of, members of the Royal Artillery.

g. Artworks and silver owned by or relating to the Royal Artillery, including the RAI Collection and regimental and battery property.

h. Other regimental and battery non-public property including documents and artefacts.

i. RA symbology including flags, badges, cyphers, and insignia.

j. The King's Tp RHA which, while it has its own heritage (in common with all RA organisations) and an operational ceremonial function, is uniquely also a heritage asset as it is one of our most recognisable links with the Regiment's historical traditions, equipment and role.

Intangible

a. The history (stories) of the Royal Regiment, its campaigns, regiments and batteries, and of those who served.

b. Battery and regimental lineage and Battery honour titles.

c. The history of the development of the science of artillery by, and on behalf of, the Royal Artillery, and the accrued scientific knowledge.

d. Artillery system doctrine, tactics, techniques and procedures.

e. Traditions and regimental events, which help generate our regimental ethos and esprit de corps. These include annual events such as: the Ceremony of Remembrance at Hyde Park; the Memorial Service at the National Memorial Arboretum; Gunner Sunday at the Royal Hospital Chelsea; the Royal Artillery Gold Cup; Royal Artillery Mess events including the Alamein and Spring Dinners; and celebrations commemorating St Barbara as our patron saint.

The Royal Artillery Heritage Community.

The Royal Artillery heritage community encompasses the whole Regiment, as we are all active consumers of heritage and participants in the making of our history. However, for the purposes of the strategy, the community primarily refers to:

(1) The Royal Artillery Collection, Library and Archive.

(2) The Royal Artillery Museum.

(3) The Royal Artillery Historical Society.

(4) Regimental Headquarters Royal Artillery.

(5) The Royal Artillery Institution.

(6) The Royal Artillery Association.

(7) The Royal Artillery Heritage Committee.

Unit Heritage Activity: Case Study

With more of the Regiment now garrisoned in Larkhill than ever before, it has never been easier to engage with the heritage of the Regiment and its batteries through the Museum and Archive. 28/143 Battery (Tombs's Troop) Royal Artillery of 19th Regiment Royal Artillery (The Scottish Gunners) recently made excellent use of these facilities as part of an impressive effort to better understand its own history, and through this achieved greater comradeship and an appreciation of what the battery had achieved in the past.

First, members of the battery visited the archive to research their battery history and update it based on sound archival evidence. Wikipedia only gets you so far! They also accessed a list of interesting podcasts and YouTube videos that were relevant to the battles and conflicts their antecedents had fought in.

Second, now with a better understanding of when and where the battery fought in the past, members visited the Royal Artillery Museum to view examples of weapons, equipment and uniform that related to the battery. The sub-unit heard more of the stories of previous members of the battery and the Regiment who had fought throughout history. Personnel had conducted their own research on items that they were going to see and were able to explain their relevance to each other. Throughout this visit, members learned more about the artillery system, how it developed, and why we fight in the way we do today.

Deploying to the poignant battlefields of World War 1, members of the battery and wider regiment were subsequently able to study the impact of artillery and the development of combined arms manoeuvre during The Great War, drawing similarities to the current conflict in Ukraine. This included participating in the daily Last Post ceremony at the Menin Gate, Ypres.

Finally, having really put the history of the battery into context and improved understanding of its heritage, the battery celebrated its birthday (in this case the anniversary of its amalgamation) and invited veterans to return to meet serving members and reunite with each other. This has reinforced comradeship and educated the newest members of the battery about the strength of the battery family and the continuity that it represents in service to the country over many decades.

The Journal of the Royal Artillery Turkish Intervention in Cyprus in 1974

Three Days in July

The Turkish Intervention in Cyprus in 1974

By Brigadier Jon Cresswell

Jon Cresswell was until recently the British DCG (Ops) with the 1st Division with particular responsibility for the Deep Battle and Joint Effects. He joined the British army in 1996 and has spent most of his operational career with 3rd Commando Brigade Royal Marines. He is a specialist in Joint Fires and Targeting in Land Littoral Manoeuvre and has completed the Royal Navy's Amphibious Operations Planning Course. He holds a Masters in military history and is the chair of the Royal Artillery Historical Society. This article was originally written for the French marines.

It is now fifty years since the Turkish intervention in Cyprus, an amphibious and vertical assault onto a hostile shore. The operation, known as Op YILDIZ 70 ATAMA 4 (Star 70 Drop 4) takes place closer to the Second World War than to our present day and a significant amount of the equipment used on both sides, dates from that period and certainly the 1950s. As one of the only successful opposed amphibious and vertical assaults since 1945 (although the landing itself was uncontested), it is a remarkable campaign which is worthy of study. Seemingly planned in detail over many years, the reality is that the actual plan and important elements of its execution were decided very late in the day with timings inevitably subject to political imperatives rather than tactical ones in what was a complicated geo-strategic scene. While the plan was simple and bold, its delivery was complicated and mistakes were made, not least the sinking of a Turkish warship by its own air force. This article will focus primarily on the first phase of the operation which is the establishment of the lodgement from 20-22 July 1974, this being the amphibious part of the operation. The follow-on phase was very much an administrative sea-bridge to bring in the second operational echelon which went on to secure the territory which to this day constitutes the Turkish Republic of Northern Cyprus.

This was a high risk operation which despite retrospective appearances, could so easily have not gone in Turkey's favour. Although involvement from the principle cold war powers was highly unlikely, with Britain clearly stating its intention not to intervene, Greek intervention could not be ruled out. Neither could a determined defence on the part of the Greek Cypriot National Guard. As it happened, the latter's response was fatally flawed

Map of Cyprus post the Turkish Intervention

due to a combination of disorganisation following its coup d'état, capability shortfalls and poor operational design. Turkey created and exploited a tight geo-political strategic window to achieve tactical freedom of manoeuvre from which to negotiate from a position of strength. With ruthless and determined leadership, the Turkish operation was able to weather the friction of war and retain the initiative. At the operational level, Turkey enjoyed both air and sea control throughout, indeed air supremacy gave the operation an extraordinary agility to attack the adversary in depth, deny them the ability to concentrate combat power, erode Greek Cypriot morale and sustain the Turkish will to endure and overcome. Air power saved the Turkish landing force on more than one occasion. Equally, this was essentially a shore to shore operation at a range of around 110 nautical miles (200km – a 12 hour transit) from the SPOE (Seaport of Embarkation) to SPOD (Seaport of Disembarkation) and, more importantly, was covered by land based airpower with a significant loiter time over a small Amphibious Operations Area (AOA). Potential Greek air force interceptors were over 1000km away on Crete.

What is particularly unique about this operation is that advanced force operations had been enacted over several years, notably taking control of the Nicosia-Kyrenia highway including the vital ground of the Kyrenia Pass and so when mission execution was confirmed, in-place forces (the Turkish armed resistance organisation (TMT[1]) and the Turkish Cyprus Regiment (KTMA[2]) could quickly enable the conditions for the rapid in-load of combat power. Vital ground was held, key terrain secured, and 'scavenger' enabled sustainment enacted to buy time and space. With this long standing footprint in place, the nature of the terrain and the adversary were well understood. Noting the elapsed time since this operation, its scale and limited objectives provide valuable food for thought as to what a national (French) pulse operation might look like or even a bi-national littoral intervention which might fall under the banner of the Franco-British CJEF (Combined Joint Expeditionary Force). This essay will outline the context of Turkey's intervention before setting out in simple terms, how the operation unfolded before offering analysis against some principles of littoral manoeuvre.

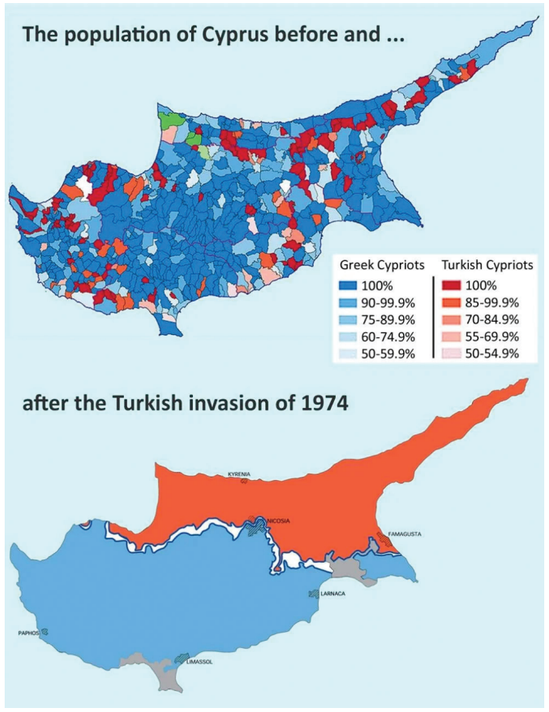
In terms of tactical details, this is a campaign that has received little coverage. Eight sources have been used alongside non academic accounts on social media. A culture of discretion in the Turkish military aligned with a strong political narrative from the Greek Cypriot side means that the historiography of this important and contemporarily relevant campaign is both limited and biased. The best English language source that I have found is Edward Erickson's study for the Marine Corps University Press which gives a very complete account and, in particular, an analysis of the amphibious assault in its wider tactical, operational, and geo-strategic context.[3] However, it needs to be considered alongside a critical account by Turkish scholars, Serhat Güvenç and Mesut Uyar, who make it clear just how close their nation came to mission failure. The title of their paper, '*Against all Odds*' is highly appropriate.[4]

Other sources tend to be more focussed at the geo-strategic level including the international context in which the events took place. This includes British decolonisation, the Cold War and by extension the Middle East and the place of Israel in US Foreign Policy. The position of the United States and the agency of Kissinger is critical to understanding the conflict[5] while also noting that the Watergate scandal consumes political bandwidth in Washington.[6] Hughes-Wilson sums up the subject neatly by observing that this is a 'forgotten war'.[7] This justifies its place in this compilation. The latter author also states that Turkish intervention served to keep the peace on the island and does so to this day.[8] This is an important observation as in many ways the narrative has turned in favour of the Greek Cypriots especially after their accession to the European Union in 2004. Open source press reports confirm EOKA-B[9] atrocities while ITN[10] coverage of the airlanding operation offers a fascinating insight into the nature of the insertion and the absence of resistance, noting that the Airborne brigade dropped into a Turkish Cypriot enclave.[11] Evidence to the British parliament's Foreign Affairs Select Committee also offers a clear understanding of the situation at the time and Britain's position.

Having been part of the Ottoman Empire for some three centuries, Cyprus came under British administration in 1878 and became a colony after the Great War. Britain maintained the identities of the two communities and no single Cypriot identity emerged. Following her withdrawal from Egypt in 1954, the island assumed greater importance although, Britain had offered to exchange Cyprus for Greek support in the First World War and for Kefalonia. The Turkish minority numbered just under 20% against the Greek majority and inter-communal tensions took place in 1897, 1912 and in 1931 when Government House was

1. Türk Mukavemet Teşkilatı.
2. Kıbrıs Türk Kuvvetleri Alayı.
3. Edward Erickson, Phase Line Attila, The Amphibious Campaign for Cyprus, 1974 Marine Corps University Press Quantico, Virginia 2020.
4. Serhat Güvenç et Mesut Uyar, Against All Odds: Turkish Amphibious Operation in Cyprus, 20–23 July 1974 dans Heck, Timothy et B. A. Friedman (ed), On Contested Shores: The Evolving Role of Amphibious Operations in the History of Warfare. Marine Corps University Press, 2020. Pp 290-319.
5. Geoffrey Warner, The United States and the Cyprus crisis of 1974, International Affairs 85: 1 (2009) pp 129–143, p. 141.
6. Ibid., p. 140.
7. John Hughes-Wilson, The Forgotten War, A Brief History of the Battle for Cyprus, 1974, The RUSI Journal, 156:5 (2011), pp 84-93.
8. Ibid., p. 84.
9. https://youtu.be/tiPOMErXbwI
10. Independent Television News.
11. https://youtu.be/Zb7wrbXfh_o?si=8ILz0L_JzPW1fMQ-

burned down. In 1955, the Greek majority rebelled, spearheaded by its armed faction, EOKA with *Enosis* (union with Greece) as the rallying call against Britain.[12] A four year insurgency followed, before an independent Republic was created through the London-Zurich accords with Britain, Greece and Turkey as guarantors. The Republic of Cyprus came into existence on 16 August 1960 and the constitution ensured minority representation. Britain retained two sovereign bases while both Greece, and Turkey would also maintain small garrisons on the island. With EOKA seeking *Enosis*, the Turkish Cypriot minority had naturally sided with the colonial power, having seen the outcome for Turks following Crete joining Greece. The Turkish Cypriot community also started to develop its own national identity based on a demand for *Taksim* (partition). To counter EOKA, the Turkish community created their own armed resistance organisation to defend themselves, the TMT, under Turkish officers.



The new republic was an armed camp and following further ethnic violence in 1963 where Turkish villages were destroyed and ethnic Turks murdered,[13] the former grouped themselves into enclaves across the island where they could be defended by the TMT. The constitution gave 30% representation to the 20% Turkish minority and an even greater ratio in the National Guard while the Turkish Vice President could exercise a veto equal to the majority elected President. Makarios announced his intention to amend the constitution which would disenfranchise the Turkish Cypriots,[14] the result being that the Turks opposed the government in protest and ultimately led to a parallel administration in the enclaves. This was followed by violent inter communal confrontations and an armed intervention by Turkish airpower[15] with increasing concern in Ankara as the existence of the Turkish Cypriot population on the island was becoming financially unviable. The years 1968 – 1971 were calm but then Grivas returned to the scene, having been expelled in 1967 at Turkish behest, and created EOKA-B. A low level civil war followed between Greek Cypriot, Enosis supporters (EOKA B and the National Guard) against those Greek Cypriots who favoured an Independent Republic (Makarios and the Police)[16]. The hard line, and more adventurous, Greek military junta which took power in 1973, assumed direct control of EOKA B with Nikos Sampson (a gangster and terrorist in the eyes of many)[17] succeeding Grivas as its head. On 15 July 1974 the Greek led National Guard overthrew Makarios. Sampson took control and declared his intention for union with Greece. Britain did not agree that the threat to the Turkish minority warranted her intervention and so conditions were now set for Turkey to intervene unilaterally, with tacit international acquiescence.[18]

For over a decade Turkey had been developing the amphibious and air assault capabilities that it might need to intervene in Cyprus.[19] Planning was years in the making but started formally in 1964 following Ankara's first threat to act under its obligations as a guarantor. Hughes-Wilson notes that by 1967, 39 Division was openly known as the 'Cyprus Intervention Division'. President Lyndon Johnson's letter of 1964 threatened to withdraw Article 5 support if Turkey was attacked by the USSR over a Cyprus intervention although at the time, Turkey did not have the military capability to invade.[20] This led Ankara to develop its own armaments industry and, in addition to overseas purchases (such as former US landing craft), Turkish shipyards began building littoral assault platforms. By 1973, Turkey possessed amphibious, airborne and commando forces at brigade strength and enhanced her skills through NATO exercises and training courses in the USA. 1st Marine Regiment exercised with the Navy every autumn.[21] In 1970, the General Staff endorsed a plan based on a landing in

12. Ethniki Organosis Kyprion Agoniston, was created by Colonel Georgios Grivas. Born in Cyprus and trained at the French Ecole de Guerre, he was a guerilla warfare expert in the Greek army. In 1964 he published his approach in 'Guerrilla Warfare and EOKA's Struggle'.
13. Written submission by Michael Stephen the House of Commons Foreign Affairs Committee on "Why is Cyprus divided?" dated 30 Sep 04 and viewed on 3 Apr 24 at: https://publications.parliament.uk/pa/cm200405/cmselect/cmfaff/113/113we45.htm, p. 3 and p. 6.
14. In the context of the Akritas plan, the ultimate aim was to remove the Turkish population from the island. Stephen, House of Commons Foreign Affairs Committee, p 2. See also Hughes-Wilson, The Forgotten War, p. 84.
15. Aug 64 at Kokkina.
16. Hughes-Wilson assesses that around 3000 Grecs were killed (p. 85) while Vassilis Fouskas states that arms and ammunition were purchased by Makarios from Czechoslovakia for the police in order to create a balance of power with the National Guard. Uncomfortable Questions : Cyprus, October 1973-August 1974 in Contemporary European History, 14, 1 (2005), pp 45-63.
17. Warner, The United States and the Cyprus crisis, pp. 134 et 135. It has been reported that Makarios had been killed.
18. Stephen, House of Commons Foreign Affairs Committee, p. 6.
19. Hughes-Wilson, The Forgotten War, p. 86.
20. Erickson, Phase Line Attila, p. 64.
21. Ibid., p. 58. Serhat Güvenç and Mesut Uyar suggest that there was a clear separation between the 1st Army which was declared to NATO and the 2nd Army which assumed the operation al command of the Cyrus intervention. Nevertheless, the advantaged of NATO training and exercises are evident. p. 297.

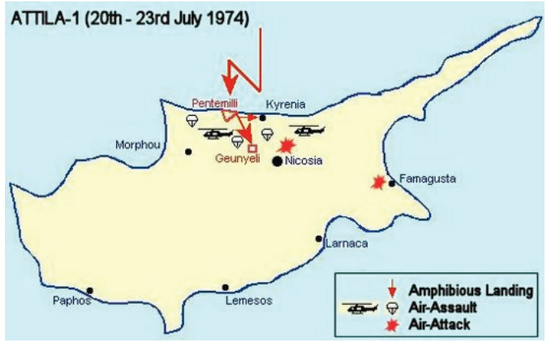
Famagusta Bay which offered a sizeable port, suitable beaches and easy access to the eastern Turkish enclaves and Nicosia. The plan was betrayed to the National Guard by a Turkish officer who defected. Nevertheless, the concept was not universally accepted, and a second option existed in the area of Kyrenia to the north where the capacity of the port was much reduced but the ability of the National Guard to react was judged to be less as they were focussed against landings in Famagusta Bay.[22] Screened by the Kyrenia Mountains it offered both opportunity and risk.

Turkish troops landing at Pentemilli (Five Mile Beach) during Operation Atilla. 1974.

In addition to preparations in Turkey, on Cyprus itself, the TMT numbered at least 15,000. It was well armed and commanded by Turkish regulars.[23] The Turkish garrison, under the London-Zurich agreement, remained at around 650.[24] This was against a Greek Cypriot National Guard comprising 12 regular battalions with 35 reserve units. In terms of manoeuvre capabilities, however, there was just one armoured regiment, an armoured reconnaissance regiment and a mechanised infantry battalion with some six artillery units of about 80 guns of various types. Their equipment was a mixture of obsolete British and Soviet platforms, ammunition stocks were limited, and the T34/85 lacked serviceable radios. The rest were light infantry which could be supplemented by EOKA B and the Police. The Greek in-place force numbered 950 troops. Above all, the National Guard had no air component, and its maritime capability was limited to four motor torpedo boats. Planning in detail took place from late May with Second Army as the operational commander and VI Corps as the Tactical of Joint Task Force/Supported Commander. The port of embarkation was Mersin, some 200 km from the coast of Northern Cyprus with aviation moved to Ovacik airfield for the air assault with seventy-four helicopters. Air force platforms were centred on Erkilet for the parachute insertion with five DC3, five C130 and ten C160. This force was brought together over four days rather than the ten that the original plans had envisaged.[25] The Commander Landing Force (CLF), Brigadier-General Suleyman Tuncer, of what was to be called Task Force Çakmak, was appointed very late in the day and his staff equally improvised.[26]

The international dimension forms an essential part of the conditions for the intervention. Notwithstanding the fact that the protagonists were two NATO nations, Makarios' flirtation with the Cypriot Communist party and his non aligned stance naturally caused concerns for Washington. There were also suggestions of USSR support for Makarios. Turkish concerns were understandable and arguably she had exercised considerable restraint until now. Her clear mandate to intervene was enshrined in the London-Zurich agreement of February 1959 which forbade both union and partition. Ankara had already threatened to intervene militarily twice, in 1964 and 1967; the former leading to a British and then United Nations response, and the second, brokered by Washington, resulted in the removal of Grivas and the withdrawal of sizeable Greek forces from the island. This latter point is important as the original Greek Cypriot defence plans assumed a sizeable Greek commitment which was no longer present in 1974.[27]

Following the Greek led coup on 15 July, Turkey immediately sought international support and her Prime Minister, Bülent Ecevit, flew to London on 17 July. Britain was not inclined to intervene while Turkey made it clear that the threat to the Turkish Cypriot population was now unacceptable and that Ankara was prepared to undertake unilateral military action under the terms of the London-Zurich agreement. Arguably, the London meeting was a smokescreen as Turkey had already launched preliminary moves to intervene not only to protect her ethnic people but also to prevent Greece gaining control of an island off her southern coast.[28] The decision to execute was taken at 1035 hrs on 19 July, the forces having already been moved to their staging areas (a three day move of over 1000 km in the case of some units), and an unsecure communications blackout imposed on the APOE/SPOE (Aerial Port of Embarkation/Sea Port of Embarkation). The



navy only had sufficient SEAL (Sea Air And Land) capabilities to clear and mark a single beach and so Pladini on Pentemile (five mile) Beach 8km west of Kyrenia was confirmed as the littoral point of entry. This beach was undefended. The landing force sailed eleven hours after the political decision to execute,[29] which was already too late to make the planned L Hour which was synchronised with the arrival of the paratroopers.

22. Ibid., p. 60 et Serhat Güvenç and Mesut Uyar Against all odds, p. 299.
23. Ibid., p. 50.
24. Ibid., p. 51.
25. Serhat Güvenç and Mesut Uyar, Against all odds, p. 303.
26. Erickson, Phase Line Attila, p. 73.
27. Ibid., p. 39 and p. 42.
28. Serhat Güvenç and Mesut Uyar, Against all odds, p. 290.
29. Ibid., p. 77.

The in-place Advanced Force would create the conditions to ensure the security and facilitate the arrival of the assault waves. The Turkish Cyprus Regiment blocked the route to Kyrenia north of Nicosia from prepared positions and the TMT secured the DZ and provided an improvised fleet of vehicles to enable the force to move quickly on landing. The provision of medical facilities and logistics should also not be ignored. A TMT platoon also secured the entry to the pass in the village of Boğazköy which later became the location of the Corps Tactical HQ. Across the island, the TMT would also defend the enclaves, but a critical element of the Turkish plan was that the protection or linking up of the enclaves was not the tactical priority. In fact, the plan was to exploit the likely attacks on the enclaves to fix the National Guard.[30] At 0831 hrs the two marine assault battalions were 'ramp down' on the beach[31] in what was an unopposed landing and reinforced in supporting waves by the 50th Infantry Regiment which included an armoured company group. This was ashore by midday with three battalions and four M47 main battle tanks, a platoon of M113 and a COBRA Anti Tank Coy.[32] By 1243 hrs the CLF was also ashore together with a 105mm battery. 50th Regt tried to expand the beachhead around 1300 hrs but 251 Battalion of the National Guard, which was in defence to the east was able to block the move and destroy two M113. The lines of the beachhead remained static for the remainder of the day. The National Guard artillery and mortars engaged in sporadic and uncoordinated fire albeit this still proved sufficient to fix the landing force in their lodgement. The Greek Cypriot guns were targeted by Turkish naval gunfire but being in concrete casemates, this proved ineffective.[33]

The area to the north of Nicosia along the Kyrenia highway was a large Turkish enclave and its occupation would deny direct reinforcement of the National Guard's blocking units in the north and give depth to the Turkish Cyprus Regiment's blocking position at Gonyeli. An Airborne Brigade of four battalions was inserted into the 'triangle' (the base being the AOA on the northern coast) over the course of three waves with a 45-minute transit from the APOE. The paras dropped at 750 feet rather than 12-1500 peacetime norms. Included in this force was a 75mm howitzer battery. The paras secured the disused airstrip at Kirini where Brigade headquarters was established and through which the Corps Tactical HQ arrived with Lt Gen Nureltin Ersin and an Air Force liaison detachment. A heliborne commando brigade of five battalions then inserted to secure the mountain pass and link the airhead with the beachhead. Three National Guard commando units were in the vicinity of the Kyrenia pass. The follow on force was two divisions (28 and 39) with an advanced armoured element that was deployed forward on 21 July to secure the lodgement. This lead element came ashore on the morning of G+2 (22 July).

The amphibious group included five destroyers for naval gunfire support and two frigates for wider security. Four minesweepers and two SEAL teams completed the force. The latter had a window of four hours to clear and mark the single beach. A deception force of five commercial vessels was dispatched to demonstrate and offer a radar signature off Famagusta. In the air, 115 combat aircraft were assigned, including a force positioned in the west to intercept any Greek air force intervention either against Turkish bases on the mainland or the invasion force. Air supremacy and sea control were never contested, the only contact being the interception of the Turkish task force by two National Guard patrol boats at 0548 hrs which were both destroyed.

As Erickson notes, *`there are two ways to defend against an amphibious landing, either on the waterline or by counter attacking the beachhead.'* [34] In their plan of 1964, the National Guard intended the former. This was called *Aphrodite 1* and was based on the presence of a Greek regular division on the island. This division was withdrawn in 1967 but the plan remained. There was another plan called *Aphrodite 2* which saw a secondary effort against the Turkish Cypriot enclaves to deny the invader the opportunity to link up and create a pan island lodgement.[35] For the more extreme Greek elements this was nothing short of an opportunity to engage in ethnic cleansing and permanently

Turkish Amphibious Landing.

remove the Turkish Cypriot community.[36] In the event, the National Guard response was late and diluted in terms of counter attacking the beachhead and controlling the Kyrenia pass. The deception off Famagusta would have no doubt contributed to this by reinforcing previously held assumptions. The uncoordinated response to pinching out the air head and the Turkish blocking position north of Nicosia was in part due to the requirement to secure the Sampson regime against pro Makarios elements. There is no doubt that despite a number of clear indicators and warnings, the Cypriot military junta did not believe a major operation was credible. The most blatant of these decisions was to focus on reducing Turkish Cypriot enclaves and the resulting dispersion of force during the phase when the Turkish operation was at its most vulnerable.[37]

30. Serhat Güvenç and Mesut Uyar, Against all odds, p. 312.
31. The time set for the littoral assault was 0700 hrs, the airborne landing took place at 0710 hrs.
32. MBB B6810 Cobra 2000 (Germany) (globalsecurity.org)
33. Erickson, Phase Line Attila, p. 97.
34. Ibid., p. 9.
35. Fouskas, Uncomfortable Questions, p. 59.
36. Hughes-Wilson, The Forgotten War, p. 85.
37. The National Guard commander under Makarios, Lt Gen Georgios Denissis, refused to support the coup d'état and so the force received a new commander in the form of Brigadier Mihail Georgitsis who was closely linked to the head of the Greek military junta, Brigadier Dimitrios Ioannidis.

The Greek regular unit on the island attacked its Turkish counterpart at Gonyeli with an unfavourable force ratio and was struck by Turkish air power. That said, it was hard fought, and a parachute battalion was deployed to reinforce the KTMA. When an armoured force was released from Nicosia to move north on 20 July, it was interdicted by Turkish airpower at around 1600 hrs in the village of Kontemenos resulting in the tactical destruction of 281 and 286 Battalions. The survivors went on to launch a counterattack at company strength with a further attack during the night, both were held after fierce fighting.[38] In the Agirda pass, the northern end was held by the Greek Cypriot Commando battalions, which at one point overran the TMT platoon where the rebroadcast capability was located to link the various elements of the landing force. Corps Tactical HQ was also not far away. Fierce fighting would continue throughout the night between the commando units of both sides.[39]

Turkish troops advance.

20 July 1974.

G+1 was decisive, the blocking action to the north of Nicosia was holding and both the airhead and beachhead were secure, but the latter was vulnerable especially at night when close air support was less certain. There was little chance of expansion or breaking out especially with the limited armour available.[40] The north of the mountain pass was in hands of the National Guard commandos. Serhat Güvenç and Mesut Uyar note that restrictions which had been imposed on Turkish airpower at the start of the operation were now lifted and much greater use was made of air delivered fires on 21 July.[41] By the end of the day, the pass was in Turkish hands. In the early hours of the morning Task Force Bora (thirty M47 and eight M113 from 39 Division under the Deputy Commander, Brigadier General Borakas) broke out of the beachhead and through to Kyrenia before detaching further force elements to link up with the commandos which it did by late afternoon.[42] The lodgement was complete and a port seized as the UNSCR 353 mandated ceasefire came into force at 1600 hrs local time although the Turks had not achieved the security they needed so 'sub threshold' consolidation and mopping up operations continued.[43] Day three of the operation saw a determined Turkish effort to seize Nicosia airport but this was heavily defended and eventually taken over by UNFICYP.[44]

The lodgement of some 22x15 km^2 was further consolidated and reinforcements landed bringing the strength to a corps with all combat units of 28 and 39 Divisions complete on the island

Turkish Invasion.

by 30 July. Both Greek military juntas fell on 23 and 24 July respectively but negotiations proved inconclusive and Greek Cypriot prevarication once again provided the conditions for the second phase of the operation to be launched over 14-16 August. This was a corps breakout to secure the *Attila Line*, which it did easily. This was followed by a second ceasefire under UNSCR 358 and was adopted unilaterally by Ankara. The Turkish army now stopped on Phase Line Attila which became the *Green Line* of today north of which a Turkish Cypriot state administers one third of the island of Cyprus which remains unrecognised on the basis that partition (as with union) was prohibited by the agreement of 1959.

Analysing the amphibious operation, the following eight attributes and considerations taken from British littoral manoeuvre doctrine offer a useful approach:

- **Unopposed – sound intelligence.** The landing on Pladini (one of the beaches on Pentemile Beach) was unopposed, this was based as much on poor anticipation by the National Guard as it was judgement by the Turkish task force. That said, the beach capacity was discovered to be limited by the SEAL teams which extended the offload time.[45] Sea and air control made this an acceptable risk and the justification for the choice was also based on the assessed reaction by the defending force which was overwhelmed by the range of Turkish options being deployed and its own disorganisation and focus on eliminating the Turkish enclaves.
- **Unity/integration of (joint) command and operational coherence.** From the very start this was a joint operation, where a lead service (the army) assumed the supported role and the planning lead. Tactical command of the landing was exercised by the Turkish Navy until CLF was established ashore and then primacy moved to the landing force. The operation was broadly coherent at the higher levels, but its complexity required much greater coordination at the tactical level as the extraordinary fratricide event at sea was to highlight. There are other examples

38. Erickson, Phase Line Attila, p. 140.
39. Ibid., p125 et Serhat Güvenç and Mesut Uyar, Against all odds, p. 313.
40. Ibid., p. 313.
41. Ibid., p. 313.
42. Erickson, Phase Line Attila, p. 152.
43. Ibid., p. 128.
44. Hughes-Wilson, The Forgotten War, p. 88.
45. Serhat Güvenç and Mesut Uyar, Against all odds, p. 308.

of blue on blue due to difficult air-land integration despite the presence of air force liaison teams in the landing/air assault force. Confusion based on the different time zones between Turkey and Cyprus is a basic friction that has caught many in the past and sadly this operation was to be no exception.

- **Task organisation based on mission.** The force was designed based on its mission. This included the provision of armour to deliver a reinforced offensive capability and a mobile reserve to exploit opportunities in the early and most vulnerable steps of the mission. Of note is that the nature of operation was such that the aim of the landing force (both air and sea delivered) was to secure vital ground and key terrain and deny it to the enemy. This is not the same as needing overwhelming combat power to seize defended objectives. As such the airborne and air assault forces were reasonably dispersed with a range of actions to undertake. Nevertheless, force ratios were often tight and the landing force lacked heavy weapons and firepower with inefficient combat loading being responsible in part.[46]
- **Air and sea control.** Neither were ever contested allowing Turkish airpower to enjoy a sizeable loiter time over the AOA and interdict in the Deep Battle which denied the National Guard the ability to mass combat power. Air Fires operated under restricted rules of engagement on the first day, but these were widened as it became clear that success hung in the balance. Of note, air supremacy also offered an HVT capability which was exploited albeit with mixed results. The psychological impact of air and sea control on both sides is important, giving strength to the landing force and the beleaguered Turkish Cypriot enclaves while creating despair and a sense of vulnerability in the ranks of the National Guard. The latter was especially prevalent given the absence of the Greek air force and so the sense of abandonment by Greece (whose actions had triggered the intervention in the first place) and isolation was reinforced.
- **Surprise/Deception.** Ironically, the Greek Cypriots largely deceived themselves. The Turkish warnings and preparations were there to be seen and Denktash took to the radio an hour early due to the time difference between Cyprus and mainland Turkey and announced the landings before they had happened, yet he was not believed. The Turks maintained a degree of uncertainty with careful security arrangements around the staging areas and in many ways the change of plan, the late appointments and final briefings and movements enhanced operational security. Turkey of course had said that it would act but what surprised the Greek Cypriots was the scale of the intervention and the fact that Turkey dared in the first place in the face of what the Greeks and Greek Cypriots might have assumed was an international consensus in their favour. The National Guard was not fully activated until after the initial landing.
- **Integrated Logistics and tactical loading.** This was a shore to shore operation where tactical loading was important but the requirement for sea basing was limited. Equally, sea control and the relatively short distance between SPOE and SPOD under conditions of air supremacy meant that following the assault wave, offloads could be largely administrative and combat supplies built up in the beachhead. Of note, is the improvisation through Advanced Force operations using the in place elements and the support of the Turkish Cypriot population provided mobility, medical and scavenger logistic solutions. These, however, were not entirely successful and the 2nd Parachute Battalion was forced to walk to its objectives from a drop zone in the south in extremes of temperature. Equally a lack of beach organisation and amphibious engineering is reported with a single bulldozer to prepare the landing zone for follow on forces. There was no amphibious recovery capability.
- **Tempo and initiative to break out.** Significant risk was taken in this domain. The beachhead was never seriously threatened but greater pressure on the beachhead on the afternoon of 20 and the 21 July might have presented real problems to the operation notably as the high ground (key terrain) to the south was not under Turkish control until 22 July. Hughes-Wilson suggests a lack of momentum and other sources cite fatigue and flagging morale.[47] When viewed holistically, it could be said that the aim was not to break out of the beachhead but rather to break in from the airhead. On arrival in their landing zones, elements of the parachute brigade headed north to secure the high ground and the role of the commandos was to ensure the link up with the littoral assault. Looking at the actions of VI Corps on G+1, there is no doubt of the determination to seize the initiative and secure the mountain pass to link up with the beachhead.
- **Readiness and Training including amphibious rehearsals.** In conceptual and capability terms this was the work of several years regarding the development of a littoral and air assault capability. Specific training for the operation was taken seriously but it was last minute as the operational plan transitioned to the tactical level in a short time window. There were no full mission rehearsals. The nature of the advanced force operations, air and sea control and the unopposed nature of the landing meant that any risk in this area proved acceptable but that is not to say that the friction of war did not play a role as the death of the commander of the 50th Infantry Regiment to friendly fire reminds us.

Outside of the tactical assessment of the operation, this study highlights two other areas of consideration for amphibious intervention. The notion of operating on the physical seam (of land and sea) also extends to temporal and geo-political strategic seams. Ankara created a limited window in which it had a licence to operate with a level of support, or at least acquiescence, from the international community, notably the USA. Turkey was also able to exploit the US position on Israel and Greece's failure to support Washington alongside Makarios' outreach to the communists and regional non alignment.[48] To avoid USSR or great power intervention, Turkey would need to respect the inevitable call for a ceasefire through the United Nations and therefore had to achieve its lodgement in a limited time window.[49] To this end, the operation offers an example of sub threshold or ambiguous warfare. Timing the assault for a Saturday was a stroke of genius. Turkey had the right to use force, but this would only be acceptable for a short window. Ironically her actions served to restore democratic government in both Greece and Cyprus[50] but this in turn would lead for calls to terminate military action before conditions that Turkey regarded as acceptable were achieved. Finally, operating on the diplomatic seams extended to potential Greek intervention which was considered likely. Greece had eighteen interceptors deployed in Crete and deployed commandos to reinforce the National Guard although the secret was so well kept that two Greek aircraft were shot down by the National Guard as they came into land at Nicosia.[51]

There is a danger of seeing Turkey's success in 1974 as inevitable. In terms of its careful nesting at the geo-political level, the combination of excellent meteorological conditions and the incoherent Cypriot National Guard response combined with the Greek decision not to intervene directly, this is understandable. However, as events on the ground highlighted, so much can go wrong and did. It was how these setbacks were managed that made the difference between success and failure. Turkish losses were not insignificant,[52] one sixth of the fixed wing capability committed to the operation was lost and this was without air to air opposition.[53] Fatigue, fear and friction, together with false assumptions, all played their part as they always do. At the tactical level, communications challenges, last minute activation, a failure to secure a deep enough beachhead, a dispersed airhead, a close run contest to secure the mountain passes (leaving a single TMT Platoon to hold this vital ground was verging on reckless) and the blue on blue engagement that killed the Commanding Officer of the 50th Infantry Regiment and his OC TACP, are all examples of Turkey's good fortune in that they did not lead to mission failure and national humiliation. Had the National Guard managed to secure the pass, had they been able to successfully contain the beachhead and isolate the follow on force while striking into the triangle, then the lodgement would not have been achieved and the situation would have been desperate for Turkey even with air and sea supremacy.

Operation YILDIZ 70 ATAMA 4 is a little studied amphibious operation which sits on the seams of an opposed landing and a peace support operation. The significant casualties might qualify the operation as a high intensity operation over a very short timescale, a concept that today might be termed a pulse operation. It was a shore to shore manoeuvre, meaning that the amphibious element did not have to sea base its entire capability and a significant part of the combat power required for the mission did not have to be carried by surface vessels and put over the beach. Two brigades were inserted by air and a not insignificant advanced force was already established in the AOA. Nevertheless, much could have gone wrong to tip the balance against Turkey. The Greek Cypriot National Guard did not have to defeat the landings, they just had to isolate the various elements and deny the link up. Notwithstanding their post coup disorganisation and associated logistic limitations, a focussed effort against the Turkish landings rather than dispersing their forces against the various enclaves might have jeopardized Ankara's plan. As such the assessment and management of risk and the various windows across the strategic operation and tactical serve to highlight the risks and opportunities inherent in an amphibious operation.

While the requirement for France to undertake such an operation, either nationally or in a coalition, is not readily apparent, its scale makes these three days in July 1974 a very interesting case study. Comparing the amphibious shipping, the naval escorts and the brigade combat teams with their supporting armour, this would appear to be well within the capability of the French armed forces and its littoral manoeuvre and airborne capability. The one area which might prove challenging is the third dimension in terms of air control platforms and troop transport helicopters, but this would be easily mitigated in a coalition with a partner of similar capabilities. Finally, the operation offers important considerations in terms of the moral component, the will to fight and the determination to overcome and succeed and how *'luck is a combination of opportunity and preparedness'*.

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46. Ibid., p. 318.
47. Hughes-Wilson, The Forgotten War, p. 90.
48. Fouskas, Uncomfortable Questions, p. 55.
49. Ibid., p. 47.
50. Erickson, Phase Line Attila, p. 158.
51. Fouskas, Uncomfortable Questions, p. 60.
52. It is estimated that the Turkish regular forces lost around 500 killed and 1200 wounded. The TMT lost 70 and over 1000. In the Greek and Greek Cypriot side, 88 Greek soldiers and 309 national guardsmen were killed and around 1500 were wounded. Caught in the crossfire, UNFICYP lost 9 killed and 65 wounded. Civilians casualties are estimates at over 5000 and this included Greek on Greek actions in terms of internal conflict. Stephen, House of Commons Foreign Affairs Committee, p. 6.
53. Hughes-Wilson, The Forgotten War, p. 90.

I have read the excellent article, “Gunners in Normandy 80 Years On”, by Maj Frank Baldwin in the Autumn edition of The RA Journal. It is full of most interesting detail about the Royal Regiment in that difficult campaign and is well written.

However, I wish to point out that the author has missed one important part of Gunner participation – the seven squadrons of the Air OP, a total of 84 Auster aircraft, that were engaged in Normandy providing air observation of gunfire, photographic reconnaissance and liaison. Many thousands of Fire Missions were carried out under heavy enemy fire, many gallantry medals were awarded (particularly DFCs), and many brave men died.

Quotations Reflecting AOP Service

- A senior commander’s remark about AOP is a fitting tribute:

Without the eyes of the Austers, our guns would have been shooting blind. Those pilots, in their fragile planes, gave us the precision we needed to prevail. Their courage was boundless, their contribution immeasurable.

- Also, that of a Private Soldier:

We knew that somewhere above, an AOP pilot was watching over us. Their signals brought the thunder of our guns, and with it, a measure of safety. They were our unseen guardians in the sky.

It was Peter Hope (late RA) of our Association (the AOPA) who pointed out to me that as you published his article on the Air OP on D-Day and the early part of the Normandy campaign (Spring Edition), your readers would have learned or been reminded of the important part played by these brave men. Overleaf you will find details of some of the notes on the AOP Squadrons operating at the time.

I am writing to ask that you might find a way - as a priority - for the RA Journal to acknowledge the part played by AOP Gunners in Normandy against the backdrop of Frank Baldwin’s published article? It would go a long way to correct their omission from the otherwise excellent article.

The Journal of the Royal Artillery

The Air Observation Post (AOP) Squadrons and their Role on D Day and Beyond

By Julian Bourne (Chairman Air Observation Post Association)

Background

The Royal Air Force (RAF) Air Observation Post (AOP) squadrons played a pivotal role during the D Day landings on June 6, 1944, and the intense days that followed. Tasked primarily with artillery spotting and reconnaissance, these squadrons were a vital link between ground forces and artillery units, ensuring that firepower was accurately directed onto German positions. Their contributions were critical to the success of the Normandy campaign.

The Role of 652 AOP Squadron RAF at Plumetot

Operating from a hastily established landing ground at Plumetot, 652 AOP Squadron RAF was among the first to deploy its aircraft in support of Allied forces advancing from the beaches. Equipped with reliable Auster Mk IV aircraft, the squadron’s pilots flew low and slow over enemy lines, spotting targets and directing artillery fire with precision.

One of the most notable figures in 652 Squadron was its commanding officer, Major John “Jack” Cobley. On July 7, 1944, Major Cobley undertook a daring mission to direct naval gunfire from HMS Rodney onto German positions just north of Caen. Flying his Auster under hazardous conditions, Cobley skilfully coordinated with the battleship to deliver devastating 16-inch shellfire onto enemy strongholds. His actions significantly weakened German defences, facilitating the Allied advance into Caen. Reflecting on the mission, a naval officer remarked, “Cobley’s courage and precise coordination turned the tide that day. His tiny aircraft was the lynchpin between our guns and the enemy.”

Operations by 658 AOP Squadron RAF and Major Lyell’s Feat

Meanwhile, 658 AOP Squadron RAF operated further west, supporting British and Canadian forces as they pushed inland. On July 17, 1944, Major William “Bill” Lyell, the commanding officer of 658 Squadron, conducted one of the most remarkable artillery engagements of the campaign. Intelligence had reported approximately forty enemy tanks concealed under cover, preparing for a counterattack.

Determined to neutralize this threat, Major Lyell took to the skies in his Auster. Braving intense anti aircraft fire, he meticulously identified the tanks’ positions. Demonstrating extraordinary coordination skills, he directed the combined artillery of the 12th and 30th Corps, along with the 2nd Canadian Corps and their supporting Army Groups Royal Artillery. This amounted to five to six hundred guns; the largest concentration of artillery ever directly controlled by a single pilot in a light aircraft.

For over two hours, Lyell remained airborne, adjusting fire and ensuring maximum impact. The result was the destruction or disabling of a significant number of enemy tanks, effectively blunting the German counter offensive. Upon landing, exhausted but triumphant, Lyell reportedly said, “It was as if the heavens opened with fire. Never before has one man wielded such might from the cockpit of a canvas bird.”

Contributions of 662 AOP Squadron RAF

Not to be overlooked, 662 AOP Squadron RAF also made significant contributions during this period. Operating in support of the US forces and the British XXX Corps, 662 Squadron provided essential reconnaissance and artillery spotting that facilitated the breakout from the Normandy beachhead.

On June 15, an incident involving Pilot Officer James Harris of 662 Squadron exemplified the squadron’s bravery. While conducting a reconnaissance mission over the bocage, a region of dense hedgerows, Harris discovered a hidden German artillery battery that had been inflicting heavy casualties on Allied troops. Despite being targeted by enemy fire, he persisted in circling the area, providing precise coordinates. His actions enabled Allied artillery to eliminate the threat, earning him commendations for gallantry.

Artillery Engagements and Tactical Impact

The meticulous work of the AOP squadrons transformed Allied artillery into a devastatingly accurate force. On June 12, 652 Squadron supported the 11th Armoured Division during their advance towards Tilly-sur-Seulles. Observers from the air pinpointed a German strongpoint that had stalled the attack. Within moments of receiving the coordinates, British artillery unleashed a bombardment, neutralizing the position and allowing ground forces to proceed.

Similarly, 662 Squadron’s efforts were instrumental during Operation Epsom, where their spotting allowed for effective artillery cover that protected flanks and disrupted enemy formations.

Vignettes from the Frontlines

The men of the AOP squadrons often operated under extreme conditions. A poignant story involves a sortie flown by Flight Lieutenant Richard Ellis of 652 Squadron. On June 14, Ellis’s aircraft came under sustained machine-gun fire from German troops. Despite his aircraft being damaged, Ellis continued to provide critical spotting for artillery, refusing to abandon his mission until the enemy guns were silenced. Upon landing, Ellis quipped to a fellow pilot, “It’s odd being the hunted in the sky, but as long as our guns can hear us, we’re never alone.”

Another vivid account features Lieutenant Alan Peters of 662 Squadron, who, on June 20, flew through adverse weather and enemy fire to deliver crucial intelligence on German troop movements. His determination ensured that Allied commanders could adjust their strategies in realtime, averting potential losses.

Artillery commanders and infantry units alike recognised the indispensable role of the AOP squadrons.

Legacy of the AOP Squadrons

The operations of 652, 658, and 662 AOP Squadrons exemplify the courage and ingenuity of these airmen. Their ability to direct artillery fire, often while under fire themselves, proved instrumental in the successes of the Normandy campaign. By providing real-time intelligence and precise targeting, they not only saved countless Allied lives but also ensured that German forces were consistently kept off balance.

The exploits of Major Cobley and Major Lyell, in particular, highlight the extraordinary impact that skilled and daring individuals could have on the course of the war. Their leadership and bravery set a high standard for coordination between air and ground units.

These squadrons’ actions in Normandy remain a distinguished chapter in the history of air-ground cooperation. Their legacy is a testament to the vital importance of aerial observation in modern warfare and serves as an enduring example of the courage and professionalism of the AOP units.

Britain's Magnificent Cavalry

Why does the Mounted Arm in the Great War have such a poor reputation?

By Brigadier Jon Cresswell

Having recently served as Deputy Commander (Deep Battle and Joint Effects) with the 1st (French) Division, Jon Cresswell is now studying at the Defence Academy. In the first year of his last appointment, he completed a Masters programme in Britain and the First World War at Wolverhampton. Noting that over the past few years, when addressing major technological change, a number of senior leaders have made references to a 'horse versus tank moment' he was drawn to analyse the role of the cavalry in the First World War. His conclusion is that while a 'horse versus tank moment' certainly occurred, it was not during the Great War. Remarkably, it appears that the opposite is true, the cavalry was actually at its zenith in 1914-1918; well lead, well equipped and well handled, Britain's cavalry proved to be magnificent in its final hour.

'Then came more troops, a section of three tanks…..and a great deal of clattering, galloping and shouting and a lot of our medieval horse soldiers came charging down the street. After a while they trotted off….. they had no sense of proportion of what was dangerous and what wasn't, in fact they had been living for years in the back areas and had no experience of real war.'

Maj Phillip Homard of the Tank Corps at Masnieres, 1917.[1]

The Great War was the zenith for British horsed cavalry after some 850 years since the Norman conquest brought knights across the English Channel. Many recent historians have noted the injustice served upon the mounted arm by succcessive waves of interpretations combined with significant challenge at the time. Britain's use of cavalry is easily regarded as an anachronism with mounted units seemingly unsuited to the conditions of modern warfare. Inevitably the mounted arm is juxtaposed against rapidly developing capabilities such as airpower and armour. The British cavalry's poor reputation was further reinforced by the slow pace of modernisation in peacetime. One contemporary observer, General Sir Frederick Pile, makes it clear that a strong body of support for horsed cavalry continued to exist late into the 1920s.[2] Horsed cavalry became synonymous with futility and flawed tactics when compared to the emerging technology of the age and so there is little wonder that Gervase Phillips calls it, 'The Scapegoat Arm.'[3] The fact that Haig and several other senior commanders were cavalry officers offers an easy target to tarnish the reputation of the cavalry as a totem of waste, obsolescence and recklessness. Stephen Badsey notes how the cavalry became a watchword for irrelevance and was closely linked to flawed generalship.[4]

This essay will contend that the First World War British Cavalry had a poor reputation for three reasons. Firstly, an entirely needless and very public debate in the decade following the Boer War on the role and principle equipment of the cavalry. This, when combined with social prejudice, led the cavalry to be seen in a very amateur and simplistic light. Secondly, the experiences of the war, notably on the Western Front, where operational expectations were not met[5] and mistakes were exploited to support the myth of the cavalry's poor tactical application to modern warfare. Finally, there is the post

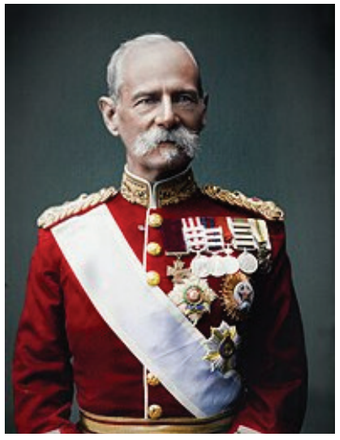
Cavalry Trooper in Marching Order WWI @ IWM

war interpretation which is both political in terms of attacking Haig's command, and technical in highlighting the failings of the cavalry as a foil to extol the virtues of the tank for shock action and pursuit, and aircraft for reconnaissance and deep strike. In this there is significant agency by the official historian, various political leaders and the champions of emerging technologies and concepts.

While there is much evidence to sustain the cavalry's poor reputation, its failings as an arm have their equals in other components of the British army of the period, the difference being that the latter's stock continued to rise in the era of industrial war. British horsed cavalry was at its zenith, albeit its undisputed role on the battlefield continues to this day on mechanised platforms. Nevertheless, the requirement for battlefield mobility could not be met by the internal combustion engine and therefore horseflesh played a not undistinguished role. Jean Bou highlights the risk of being too focussed on the Western Front where trenches and barbed wire were the single greatest obstacle. However, not all areas of the Western Front conformed to this description and the potential for mobile action both there and in other theatres was significant.[6] This essay will therefore argue that the British cavalry's poor reputation was not deserved, and the mounted arm was the victim of political intrigue, ignorance of battlefield realities and selective interpretation.

The historiography must begin with the official history by Brigadier General Edmonds, a staff college contemporary of Haig whose first publications emerged in 1922[7] followed by political reinterpretation by Lloyd George in his re-casting the view of Haig after the Field Marshal's death. Liddell Hart and Fuller play important roles as the heralds of the new armoured age of manoeuvre with sixties' historians such as Cyril Falls and AJP Taylor saddling the cavalry as a totem of futility and failure. A more balanced interpretation started to see light shortly after, spearheaded by Brian Bond and followed by John Terraine with particularly focussed scholarship more recently by Stephen Badsey and David Kenyon. William Philpott defends Haig against unfair suggestions that he was seeking a role for his former arm and highlights that the cavalry remained the fastest arm of exploitation with its potential actually increased on the modern battlefield.[8] Others such as J P Harris, who is anti-Haig, see the latter as being obsessed with breakthrough by the cavalry as part of an unachievable strategic vision.[9]

Field Marshal Haigh



Lord Roberts

The changing battlefield provoked a heated, unnecessary and very public debate at the start of the twentieth century on the future direction of the cavalry, driven by the Commander in Chief, Lord Roberts.[10] Badsey cites Ian Hamilton as the chief cavalry baiter with his colourful condemnation of mounted arm as a 'medieval toy' before the Elgin Commission.[11] The argument centred on Robert's unshakeable belief that the rifle had eclipsed the *arme blanche* (cutting or thrusting weapon) as the primary weapon of

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9. J. P. Harris, Douglas Haig and the First World War (2008), p.537.
10. Bou, Cavalry, Firepower and Swords, p.101.
11. Badsey Doctrine and Reform, p.169 also S. Jones, From Boer War to World War; Tactical Reform of the British Army, 1902 – 1914 (2012), p.177, and B. Bond, Doctrine and Training in the British Cavalry 1870 – 1914 in M. Howard, ed., The Theory and Practice of War: Essays presented to Captain B H Liddell Hart (1965) pp. 96 – 141, p.110.

mounted troops.[12] This was something that Sir John French could not accept as it impacted on the two sacred cows of the cavalry: the charge and cavalry spirit.[13] The public debate shone a spotlight on the cavalry, notably through the publication by Erskine Childers in 1910 of *War and the Arme Blanche* and exposed it to ridicule.[14]

A poor reputation has been a recurring theme for British cavalry from the Peninsular to the Crimea with some questionable episodes in the Sudan and then the Second Boer War[15] (11 Oct 1899 - 31 May 1902). Britain's experience of colonial campaigning had seen the increasing use of irregular cavalry who were mounted rifles and mounted infantry. Regular cavalry was now inevitably called upon to fill these roles with mounted charges being rare. The Boer War confirmed the power of mobility and firepower.[16] The oft cited Klip Drift action was not a charge but a rapid manoeuvre in depth which Badsey compares to the role of armour and airborne operations in the Second World War.[17] The other notable mounted action at Elandslaagte was a local charge of just two squadrons in the pursuit and therefore not an example of shock action.[18]

During the Russo-Japanese War (8 Feb 1904 - 5 Sep 1905) there were very few mounted actions and firepower dominated.[19] The US Civil War saw cavalry action centred on mobility and dismounted firepower.[20] However, German cavalry actions in the Franco-Prussian War (19 Jul - 10 May 1871) indicated that shock tactics were still viable and that horsed cavalry was far from obsolete.[21] This was agreed by the Elgin Commission which offered the compromise that the cavalry should operate as both mounted rifles and be able to fight mounted with the *arme blanche*.[22] This proved to be entirely correct in the Great War and made the cavalry's reputation the only loser in the needless decade long debate.

The tactical roles of the cavalry are numerous: reconnaissance, patrolling, screening, piqueting, liaising, raiding, scouting, shock action and mobile firepower.[23] In terms of reconnaissance the advent of airpower did nothing to change the importance of the cavalry's role on the ground as air reconnaissance was non persistent and cavalry was vital for screening.[24] As Sheffield highlights, 1914 armies lacked an instrument of exploitation other than mounted cavalry.[25] Even the nascent role of the air arm in battlefield air interdiction could not replace the impact of the cavalry raid. Tactically the reputation of the British cavalry should have been intact but armies are deeply political and socially divided institutions and the cavalry was viewed as privileged, obsolete and reactionary.[26] Bond observes that the high cost of service in a home based cavalry regiment naturally led

Ist Reserve Regiment of Cavalry training in Aldershot in 1914. NAM

to envy, animosity and a shortage of officers.[27] He further notes that the development of cavalry spirit which was a combination of confidence, autonomy and initiative[28] appeared to be best achieved through regular fox hunting which naturally drew the scorn of the other arms.[29] Badsey notes an uncertainty about the role of cavalry on manoeuvres pre 1914.[30] None of these factors enhanced the cavalry's pre war reputation.

The Boer War had highlighted the mounting cost and increasing impracticality of mounted troops at the turn of the century when urbanisation led to a declining 'horse based' population in terms of riding animals, horse management skills and actual ability to ride.[31] Bou describes the difficultly of training cavalry.[32] The same conflict encountered significant challenges in terms of logistics, acclimatisation, the poor standard of horsemanship and the weight carried which led to staggering casualties equating to two thirds of all the army's horses.[33] When acting dismounted, one man in four was required to act as a horse holder which significantly reduced the firepower available to the now dismounted force. Unsurprisingly the War Office turned to more cost effective options such as bicycle troops. The fragility of horseflesh in South Africa re-appeared on the Western Front and thus the cavalry had to be 'carefully handled'[34] to avoid succumbing to the cold, reduced water and forage alongside the risk of shellfire.[35] The cavalry's logistics demands were also significant and, in the case of operations in Palestine, led to failed offensives.[36] These factors were further evidence to indicate the questionable value of the mounted arm.

12. Jones, Tactical Reform, p.179.
13. Badsey, Doctrine and Reform, p.174 and p.224.
14. Ibid., p.188.
15. Bond, Doctrine and Training, p.103.
16. P. Warner, Field Marshal Earl Haig (1991), p.123.
17. Badsey, Doctrine and Reform, p.16.
18. Jones, Tactical Reform, p.168. 19. Bond, Doctrine and Training, p.113.
20. Ibid., p.98.
21. Ibid., p.99.
22. Badsey, Doctrine and Reform, p.169.
23. British Army - Military Knowledge Module 1 – The Royal Armoured Corps, (2017).
24. Badsey Doctrine and Reform, p.244, also Anglesey, British Cavalry, p.119, and J.E. Edmonds, History of the Great War; Military Operations in France and Belgium 1918, Volume IV, 1947. p.125 and J. Buckey, Air Power in the Age of Total War (1999), p.46.
25. Sheffield, The Chief, p.101.
26. Jones, Tactical Reform, p.169.
27. Bond, Doctrine and Training, p.100.
28. Badsey, Doctrine and Reform, p.21.
29. Bond, Doctrine and Training, p.101.
30. Badsey, Doctrine and Reform, p.207.
31. Ibid., p.76 and p.232.
32. Bou, Cavalry, Firepower and Swords, p.103.
33. Badsey, Doctrine and Reform, p.91 and Jones, Tactical Reform, p.168.
34. Haig's Instruction of 20 Mar 17 in Anglesey, The Marquis of, A History of the British Cavalry 1816-1919 Vol 8 The Western Front 1915 – 1918 Epilogue 1919 - 1939 (1996), p.74.
35. Ibid., p.76.
36. Bou, Cavalry, Firepower and Swords, p.105/6 and M. J. Mortlock, The Egyptian Expeditionary Force in World War One: a history of the British led campaigns in Egypt, Palestine and Syria (2011), p.71.

The most obvious change on the battlefield was the dominance of firepower.[37] Field Service Regulations of 1912 states that the mobility of cavalry is enhanced by its own integral firepower.[38] With the demise of the Mounted Infantry, there was no real difference between cavalry regiments on the eve of war. All were 'hybrid dragoons'[39] armed with the magazine-fed Lee Enfield .303 and supported by machine guns and artillery.[40] The cavalry's reputation of being defeated by modern weapons could not be further from the truth. Kenyon goes some way in disproving the machine gun myth.[41] The mounted arm embraced

Lee Enfield .303

firepower and proved highly adept in its employment. In terms of facing hostile fire, the open order gallop could be very effective if conditions were right and so shock action remained entirely possible. The new battlefield offered greater opportunities for mobility. Haig observed in his Cavalry Studies of 1907 that greater potential for manoeuvre would limit cavalry's exposure to fire.[42] Philpott records how mass industrial armies could not be broken in one battle[43] and therefore the concept of the pursuit now changed to exploitation in depth. Barbed wire was an obvious obstacle to horses, but it was to the infantry too.

Contrary to popular belief the *arme blanche* still had a role to play. Shock action had been re-introduced into Cavalry Training 1907 to restore pride and élan. In India, Haig had found cavalry to be 'too defensive' believing that dismounted action led to passivity.[44] There is no suggestion that a repeat of Von Bredow's action at Rezonville 1870 was contemplated but it was envisaged that opportunities for shock action would continue to exist and would succeed under the right circumstances.[45] This proved to be sWo accurate that the Australian Light Horse, a mounted rifle organisation, was issued swords in Palestine in 1918.[46] Mesopotamia and Palestine offered significant opportunities for mobile action against isolated positions and the pursuit.[47] The Desert Mounted Corps under Chetwode make fourteen mounted attacks over 1917-1918 of which eleven were successful.[48] The most famous action was the capture of Beersheba by the Australian Light Horse.[49] Allenby possessed a larger cavalry force than Haig and mounted action was key to his victory. Nevertheless, Badsey lists some twenty *arme blanche* actions on the Western Front over 1916-1918[50] and assesses that none led to disproportionate causalities for the time.[51] As with the infantry bayonet, the *arme blanche* had an important psychological effect as did the simple sight of the cavalry moving through the lines.[52] On this basis there is much to defend the cavalry's reputation against a charge of obsolescence.

The British Cavalry that deployed to the continent in 1914 was the modern firepower based hybrid that Roberts had advocated

French Cavalry WW1

and that Haig had designed. It was organised into an ad hoc and imperfectly structured division[53] and was almost immediately allocated an infantry brigade in support.[54] In comparison with other nations, however, it was very advanced.[55] Spears notes how the French cavalry were simply not equipped for modern warfare.[56] Badsey opines that German cavalry was inferior to the British; a fact highlighted by almost all the engagements between the two mounted forces.[57] In addition to the Cavalry Division and the 5th Independent Brigade, squadrons were allocated to infantry divisions to operate alongside cyclists in the scouting function.[58] In all its roles the cavalry of 1914 proved to be a highly effective force which blunted German

37. Bond, Doctrine and Training, p.98.
38. Badsey, Doctrine and Reform, p.217.
39. Jones, Tactical Reform, p.187 and Kenyon, Horsemen, p.19.
40. Badsey, Doctrine and Reform, p.178 and Kenyon, Horsemen, p.6.
41. Kenyon, Horsemen, p.5.
42. Badsey, Doctrine and Reform, p.211. 43. Philpott, Bloody Victory, p.25.
44. Badsey, Doctrine and Reform, p.179. 5. Bou, Cavalry, Firepower and Swords, p.114.
45. Bou, Cavalry, Firepower and Swords, p.114.
46. Ibid., p.121.
47. Ibid., p.106 and Mortlock, Egyptian Expeditionary Force, p.207.
48. Badsey, Doctrine and Reform, p.286.
49. Bou, Cavalry, Firepower and Swords, p.108.
50. Badsey, Doctrine and Reform, p.275.
51. Ibid., p.20.
52. Bou, Cavalry, Firepower and Swords, p.113 and Anglesey, British Cavalry Vol 8, p.58.
53. Badsey, Doctrine and Reform, p.241.
54. Edmonds, Official History, p.121.
55. Jones, Tactical Reform, p.190.
56. E. Spears, Liaison 1914; A Narrative of the Great Retreat (1930), p.100.
57. J. Williams, Byng of Vimy; General and Governor General (1999), p.70.
58. Anglesey, British Cavalry Vol 8, p.65.

reconnaissance, screened the retreat and accurately reported German movements.[59] Anglesey notes how this quiet success story has been sadly overlooked.[60]

Until defence in depth was introduced, followed by a return to open warfare in the latter part of the war, the importance of mounted troops declined on the Western Front. 'Bite and hold,' which was the answer to the siege lines of 1916/17 was no longer enough in 1918 and the cavalry returned to its role of 1914.[61] Its vindication came at Amiens on 8th August 1918 when the cavalry broke through and captured all its objectives.[62] The Cavalry Corps of 1918 was however, a fundamentally different organisation from 1914; integrating Mark V infantry carrying tanks, Whippet light tanks and numerous supply

Whippet Light Tank

tanks,[63] and operating with armoured cars, cyclist riflemen, lorry mounted machine gun troops and even infantry in buses.[64] The value of cavalry mobility was still undisputed, horses moved at 12 mph whereas even the fasted Whippets could only move at 5 mph.[65]

Concepts for the tactical employment of cavalry under the new battlefield conditions did not remain static. The development of different approaches to exploit the qualities of the cavalry can be traced back to Loos.[66] This approach saw cavalry deployed forward in smaller groups with limited objectives to widen the breakthrough. Bailey makes it clear that covering fire was essential for their employment.[67] Sheffield identifies this employment in planning for the Somme as early as March 1916 where they would exploit shock and surprise to expand the pocket until relieved by infantry.[68] The creation of the Reserve Army by Haig for the Somme in 1916 expanded this concept at the operational level and can feasibly

Hussars on the lookout 1914

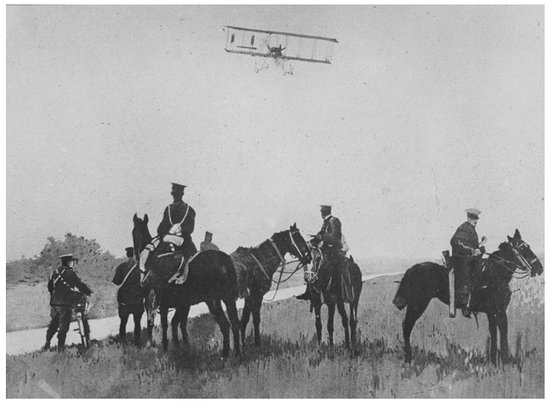
be seen as the embryo of Liddle Hart's concept of the *Expanding Torrent*. It was this concept that aimed to restore the reputation of the cavalry as a decisive force but it was not deliverable on the Western Front. The lack of operational success impacted negatively on the cavalry's reputation.

This essay has demonstrated through the successes of the British cavalry that its poor reputation was not justified and that the modern battlefield offered significant opportunities to the mobile firepower

'L Battery Royal Horse Artillery in action at Nery', 1 September 1914

59. Jones, Tactical Reform, p.204.
60. Anglesey, British Cavalry Vol 7, p.129.
61. Kenyon, Horsemen, p.236.
62. Badsey, Doctrine and Reform, p.31 and G. A. Sheffield, Douglas Haig: From the Somme to Victory (2011), p.307.
63. Anglesey, British Cavalry Vol 8, p.228.
64. Ibid., p. 294 and Badsey, Doctrine and Reform, p.298.
65. Kirke Report Appendix 5 Mesopotamia, p.104.
66. Badsey, Doctrine and Reform, p.256.
67. J. Bailey, The First World War and the Birth of the Modern Style of Warfare in Strategic and Combat Studies Institute, The Occasional No 22, (1996), p.5.
68. Sheffield, Somme to Victory, p.172.

of the mounted arm. Although criticism can be levelled at Allenby's failure to screen 2nd Corps leading to Smith Dorian having to fight the Battle of Le Cateau,[69] the cavalry's poor reputation in the war is largely derived from the period of siege warfare from late 1914 until mid 1918. As Hew Strachan notes, siege warfare was never cavalry warfare, it was the domain of the artillery, engineers and infantry.[70]



British Airman returning from patrol WW1

Cavalry training 1912 set out the ambition of riding through the 'G in Gap'[71] but the ability to create a gap that the cavalry could exploit through effectively proved unachievable during the period of positional warfare on the Western Front.[72] Communications and decision making were a significant challenge and the failure to use the cavalry inevitably called their value into question and raised the spectre of a lack of cavalry spirit.[73] The reality was that there was little tactical value in going through the G in Gap as a forlorn hope as proved at Cambrai by B Squadron of the Fort Garry Horse.[74] Even when opportunities arose, the limitations of mounted troops meant that their ability to advance at pace and exploit the opportunities were significantly constrained. The cavalry did its best to improve their chances through the creation of cavalry tracks which avoided the logistic resupply routes of other arms,[75] a frequently cited source of resentment.[76] It could take a whole day to deploy a regiment from the rear by which time the opportunity had been lost thus calling into questions its utility. However, the risk of being too far forward was illustrated at Cambrai when the 4th Hussars horse lines were bombarded on 25 November 1917.[77]

Fort Garry Horse

The battle of Cambrai is an important example of the cavalry's poor reputation. Designed initially as a raid, the concept expanded to deliver a breakthrough which was partially achieved but not consolidated and so became viewed as a missed opportunity. The Cavalry Corps Commander, General Kavanagh, was blamed for inaction at the start of the battle and then for recklessness at its close with the needless attack of the Mhow Brigade.[78] This left the cavalry 'despised and ridiculed' in the words of Anglesey.[79] There were accusations of a lack of drive and initiative but in reality the mounted arm was the scapegoat for the deeper failings of the operation, poor weather conditions and a highly effective German counter offensive.[80] Allenby's masterstroke at Megiddo on 19 September 1918 showed what detailed staff work and all arms action integration could deliver with a gap made by 21st Corps through which the Desert Mounted Corps exploited in depth. This was an all arms action, with a major fireplan to create the conditions to break-in, breakthrough and breakout.[81] This showed that the cavalry was no forlorn hope but had its place within a balanced force thus vindicating the criticism of Cambrai.

69. Badsey, Breakthrough Doctrine, p.147.
70. H. Strachan, The First World War, A new illustrated history (2003), p.170.
71. Badsey, Doctrine and Reform, p.251.
72. Ibid., p.255.
73. Sheffield, Somme to Victory, p.111.
74. Badsey, Breakthrough Doctrine, p.157.
75. Anglesey, British Cavalry Vol 7, p.42/43.
76. Badsey, Doctrine and Reform p.76/77.
77. B. Hammond, Cambrai 1917; the myth of the first great tank battle (2008), p.301.
78. Badsey, Doctrine and Reform, p.161.
75. Anglesey, British Cavalry Vol 7, p.42/43.
76. Badsey, Doctrine and Reform p.76/77.
79. Anglesey, British Cavalry Vol 8, p.153.
80. Hammond, Cambrai 1917, p.272.
81. Bou, Cavalry, Firepower and Swords, p.121.

British cavalry riding through Arras, 11 April 1917

Pile cites Arras as a classic cavalry failure suggesting a selective memory based on what had become accepted fact.[82] In fact it was an example of a successful tactical exploitation by the cavalry following an infantry breakthrough. On 11 April 1917 cavalry advanced rapidly and held Monchy le Preux until relieved by tanks and infantry. However, the subsequent bombardment devastated the position and caused significant losses of both men and horses.[83] Monchy highlights the value of local exploitation by the cavalry as their tactics developed to exploit mobility in smaller groups held further forward. Such incidents were interpreted as a failure of the cavalry. Badsey attacks the assumption that casualties meant disaster, citing High Wood as an example where in fact there were 14 dead and 60 wounded.[84] While this was heavy for two squadrons it was within the norms for the period and was a successful action.[85]

Inevitably the cavalry was seen as a 'safe billet' by the infantry according to their warrior hierarchy, especially as the horses were wintered in French coastal resorts.[86] While there is no doubt that this factor coloured the cavalry's reputation, the cavalry suffered the highest proportion killed of all the combat arms with officer casualties twice the number.[87] Furthermore, the cavalry created a dismounted division to undertake trench duties[88] and furnished work parties in the forward areas.[89] The extent to which this eroded morale and reduced their operational effectiveness must be questioned[90] but Badsey argues that the cavalry was the only force left with its original identity,[91] so morale was not an obvious source of their poor reputation. In fact, the cavalry's reputation for its dismounted role in defence was very high. At First Ypres it formed a critical mobile reserve holding seven miles of trenches with a brigade's worth of

82. Pile, Liddell Hart and the British Army, p.170.
83. Anglesey, British Cavalry Vol 8, p.87 and p.90.
84. Badsey, Doctrine and Reform, p.31.
85. Anglesey, British Cavalry Vol 8, p.48.
86. Badsey, Breakthrough Doctrine, p.139.
87. Anglesey, British Cavalry Vol 8, p.38.
88. Badsey, Doctrine and Reform, p.257.
89. Anglesey, British Cavalry Vol 8, p.64.
90. Ibid., p.156.
91. Badsey, Doctrine and Reform, p.277.

firepower against a German Corps.[92] Its role in defence at Cambrai and then in March 1918 was equally important where the cavalry's ability to move at speed held the line and reassured the retreating infantry.[93]

Much of the cavalry's poor reputation comes from political debate both during and after the war. Badsey notes that while many of the most senior commanders were cavalrymen[94] this was not reflected in the lower echelons of command and so the British Expeditionary Force (BEF) was not dominated by cavalry officers. In fact, he goes further in suggesting that most cavalry commanders avoided using cavalry for the sake of it.[95] This is the very opposite of Harris' charge and dispels what Bushaway calls the 'myth of cavalry leadership.'[96] That such a myth has developed is inextricably linked to Haig as the Commander in Chief. Kenyon describes the extension of the vilification of Haig to the mounted arm in general.[97] Ironically, as many recent historians have been at pains to demonstrate, Haig was a reformist cavalry commander who held a very modern concept about how cavalry should operate.[98] Haig viewed trench warfare as a temporary phase from which the BEF must be ready to emerge and return to manoeuvre,[99] something that Ludendorf was unable to do in 1918 for want of a mounted formation.[100] The cavalry became a further means for Lloyd George to attack Haig's command,[101] which combined with further intrigue from Rawlinson and Wilson,[102] questioned the relevance of mounted troops and pressured Robertson to convert three mounted divisions to cyclists in 1916 and then make further reductions in 1918.[103]

The cavalry became a target for war committee savings out of fear of shipping losses,[104] despite being only 6% of the BEF and accounting for only 25,000 horses out of 382,000 on the Western Front.[105] Most forage was for transport animals.[106] The belief that mounted cavalry was of limited use led to the continual erosion of Haig's mobile reserve and as a result the cavalry of 1918 was too small to deliver the effects that Haig had envisaged, further eroding their reputation.[107] This reputation was fatally damaged by the agency of Edmonds in the official history,[108] based on accounts and opinions influenced by personal grievance and prejudice, which are such dominant features in the tribalism of an army. As already shown, such views were present prior to the war and continued both through and after with the mechanised versus medieval schools championed by Fuller and Liddell Hart.[109] As Kenyon demonstrates, the armoured prophets were only half right, Liddell Hart's theories were arguably describing a cavalry rebirth rather than a new form of warfare.[110] New technology was too slow, too unreliable and too limited by terrain to challenge the cavalry's mobility.[111] Tanks were the answer to barbed wire and machine guns but as assault guns or armoured engineers rather than mobility platforms for deep manoeuvre. They were also vulnerable to anti tank guns and artillery and so could not act in isolation.[112] To this end they had vulnerabilities equal to those of the mounted arm.

The cavalry's poor reputation stems from a debate starting before the Great War and continuing through and beyond. It can be attributed to a number of factors: a lack of operational success associated with the mounted arm, perceptions of failure, futility and waste, and operating methods linked to perceptions of bad leadership and poor tactics. There is much evidence to prosecute the cavalry, their logistics demands were significant, their training long and, in the face of modern firepower, they were hugely vulnerable. The cavalry's employment was constrained over the period of siege warfare and this further fuelled the debate about their utility even within their own ranks. Many transferred into other arms and entire units were re-roled. The debate, however, should be about mobility rather than horseflesh and in the Great War, the mounted arm had no equal. The great surprise was the continued relevance of the arme blanche to deliver shock action. This cavalry's poor reputation is ill-found and not deserved. The cavalry of 1914 was a modern force and continued to develop over the course of the war. Amiens served as the tactical vindication of the cavalry together with Haig's operational concept on the Western Front. In Palestine, the cavalry was decisive to Allenby's victory.[113] It is this latter success that can be viewed as the real birth of Blitzkrieg and Liddell Hart's Expanding Torrent.

'All afternoon we watched the cavalry riding over the brow of the hill in hundreds and thousands; it was a very fine sight.'

2Lt McMutrie 7th Battalion, Somerset Light Infantry.[114]

92. J. French, 1914 (1919), p.261 and Badsey, Breakthrough Doctrine, p.149.
93. Anglesey, British Cavalry Vol 8, p. 141, p.184 and p.191.
94. Badsey, Breakthrough Doctrine, p.142/3.
95. Ibid., p.145.
96. R. Bushaway, Haig and the Cavalry, a paper reproduced by the Western Front Association at www.westernfrontassociation.com/world-war-i-articles/haig-and-the-cavalry viewed on 30 May 2019.
97. Kenyon, Horsemen, p.12.
98. Sheffield, Somme to Victory, p.54 and Kenyon, Horsemen, p.236.
99. Sheffield, Somme to Victory, p.377.
100. Anglesey, British Cavalry Vol 8, p.xxiii also Sheffield, Somme to Victory, p.41 and Badsey, Doctrine and Reform, p.294.
101. Badsey, Doctrine and Reform, p.278 and R. Neillands, The Great War Generals on the Western Front 1914-1918 (1999), p.526.
102. Badsey, Breakthrough Doctrine, p.152.
103. Badsey, Doctrine and Reform, p.276.
104. Anglesey, British Cavalry Vol 8, p.37.
105. Ibid.,p.287.
106. Badsey, Breakthrough Doctrine, p.141.
107. Sheffield, Somme to Victory, p.14.
108. Badsey, Breakthrough Doctrine, p.141.
109. Hammond, Cambrai 1917, p.430.
110. Kenyon, Horsemen, p.3.
111. Hammond, Cambrai 1917, p.17.
112. Ibid., p.17.
113. Of note is that the Cavalry Regiments of Allenby's army were often Yeomanry Regiments or Imperial Mounted Rifles (Australian Light Horse).
114. Hammond, Cambrai 1917, p.195.

The Indian Campaigns of Lord Roberts VC

Royal Artillery Historical Society Shrapnel Lecture

By Dr Rodney Atwood

After a short service commission in the Royal Tank Regiment, Rodney Atwood went to Cambridge where he did his research on Hessian Mercenaries in the War of Independence. After that he was for twenty six years a schoolmaster. On retirement he worked on the life of Field Marshal Lord Roberts, producing three books. The last of these is the first definitive biography for over half a century. His biography of one of Roberts' 'young men,' General Sir Henry Rawlinson was published in 2018. Rodney's books include The Hessians: Mercenaries from Hessen-Kassel in the American Revolution (1980), The March to Kandahar: Roberts in Afghanistan (2008), Roberts and Kitchener in South Africa (2011), The Life of Field Marshal Lord Roberts (2014) and General Lord Rawlinson. From Tragedy to Triumph (2018). In addition, he has one article of note to be found on the website of the Kipling society 'Across our Fathers' Graves: Rudyard Kipling and Field Marshal Lord Roberts' He is at present editing the draft of General Sir Martin Farndale's History of the Royal Artillery in the North African Campaign 1942-3 with the support of James Gower and Dick Clayton.

INTRODUCTION

During his *Forty-One Years in India*, as Roberts entitled his autobiography, he was involved in six conflicts of varying seriousness:

1857 The Indian Mutiny.

1863 The NW Frontier Expedition to Sitana north east of Peshawar.

1867 Sir Robert Napier's Abyssinian Expedition.

1871 The expedition against the Lushais in Assam north of Chittagong

1878-1880 The Second Afghan War

1886 The 3rd Burmese War 1886

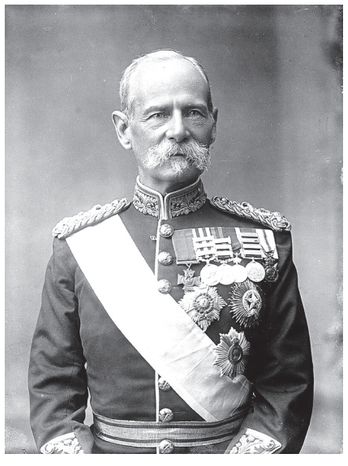
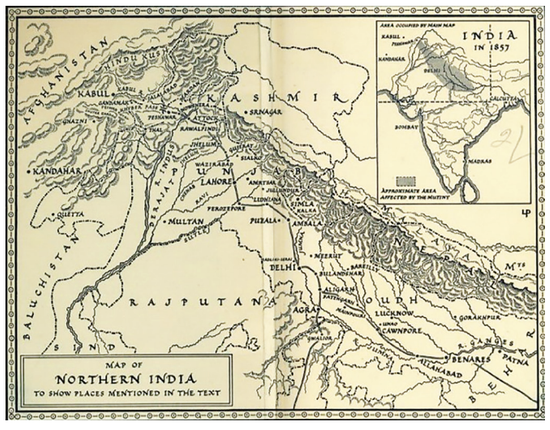


Fig 1. Field Marshal Lord Roberts as Commander in Chief of the Forces

1857 INDIAN MUTINY

On the evening of 11th May 1857, a young Irish subaltern in the Bengal Artillery of the East India Company (EIC)'s army at Peshawar heard shocking news from a telegram from Delhi. Sepoy regiments at Meerut had mutinied, murdered Europeans both civilians and soldiers, some of the latter with their wives coming out of church unarmed following divine service, burnt houses and freed prisoners from the gaol. Twice before, at Vellore in 1806 and Barrackpore in 1824, there had been mutinies, but they had been quickly suppressed. This time those in command at Meerut acted (in the words of the subaltern – it was of course Roberts) like a lot of old women. The mutinous regiments escaped from Meerut and marched to Delhi where the same scenes of murder took place.

The immediate cause of the sepoy rising was the introduction of the new Enfield rifle. Its paper cartridge was greased to permit ease of loading, and unfortunately government contractors supplied tallow from slaughtered cattle and pigs as lubricant. These were anathema to Hindus and Muslims respectively. In Delhi the sepoys secured the person of Bahadur Shah, the 82 year old King of Delhi (the British had demoted him from Mughal emperor to this lesser rank) as a symbol and figurehead of their uprising. The telegraph master at Delhi sent a message headed 'to all stations in the Punjab' telling of the uprising and its spreading. It was this which Roberts received. Once the Mutiny was under way, it quickly became a more widespread revolt in a broad band of northern India. Peasants joined



Map 1. Northern India

in. The whole of the Bengal Army, the largest of the three EIC armies, was in revolt. The Bombay and Madras Armies, the other two armies, were scarcely touched.

Many other Indians remained loyal. But 1857 was a good year to rebel. Six European regiments were away in the Crimea, and native troops outnumbered Europeans 257,000 to 36,000.[1]

We know about Roberts's part in the events of 1857 from his contemporary letters which are in his papers at the National Army Museum. They were produced by his elder daughter in a book published in 1924. He describes it in the first volume of his autobiographical Forty-One Years in India. Subsequent letters and speeches show that he maintained his interest in 1857 throughout his life, trying to convey to future generations the heroism of the time and to correct errors and misconceptions. G W Forrest, one of his biographers, counted the Sepoy Mutiny of 1857 as one of the three most important events of Roberts's life.[2] They would be a hugely formative influence.

His Indian Mutiny service falls into three parts:

1. The Punjab.
2. Delhi.
3. Lucknow and after, including winning the Victoria Cross.

There may have been old women in command at Meerut, but not at Peshawar, where Brigadier Sydney Cotton commanded, supported by Neville Chamberlain, John Nicholson, and Herbert Edwards.

They held a hurried conference at which Roberts took minutes. Hesitation would have been fatal. Letters intercepted by Edwards showed the extent of disloyalty among the sepoys. These commanders were determined men, prepared to be ruthless; to see them in action was part of Roberts's military education. The 64th Native Infantry were dispersed, sepoys at Peshawar and Nowshera were disarmed. Four of five regiments at Peshawar laid down their arms, faced by European troops and guns. The subadar-major and 250 men of the 51st Native Infantry who deserted were rounded up by border Afridis and returned. All were tried by court-martial and the subadar-major hanged in the presence of the whole garrison.

Roberts travelled to Rawalpindi and joined Neville Chamberlain in command of the Moveable [Mobile] Column as QMG, really chief staff officer, a remarkable post for one so young: he was 25. He wrote jubilantly to his mother. He had already written to her to say he was looking forward to action 'but sincerely wish it were in a better cause and not against our own soldiers.' Later he was angered at news of atrocities, calling the sepoys 'horrible blackguards' and worse than the enemies of the British, Sikhs and Afghans had not abused and killed our women and children'.

The Moveable Column reached Mian Mir, the cantonment outside Lahore where Roberts was warned on the night of 8th June that the men of the 35th Native Infantry had already loaded their muskets in preparation for revolt at daybreak. He woke Chamberlain who had the men of the column fallen in. Muskets were examined and two found loaded. A drumhead court martial of native officers was assembled, the two were found guilty and executed by being blown from the mouths of cannon: 'a terrible sight [wrote Roberts] and one likely to haunt the beholder for many a long day.'

Roberts continued to act as staff officer for the column when Chamberlain was ordered to Delhi and succeeded by John Nicholson. Two further suspect regiments were disarmed. Hearing that artillery officers were urgently required at Delhi, Roberts asked for permission to join the Bengal Artillery there. Having at first refused, Nicholson reluctantly agreed. The two who were good friends dined together, and at dawn Roberts and two other officers departed in a mail cart. He was to be lucky: of the two, later one was killed and the other crippled for life by an ankle wound. His kit was a small bundle, 'saddle and toothbrush,' he told his parents. Servants would follow with horses, tents and other belongings.

1. There are numerous accounts of the events of 1857, e.g. Christopher Hibbert, The Great Mutiny. India 1857 *(Penguin Books, 1978).*

2. National Army Museum, Roberts papers 8310-155. Subsequent quotes are taken from this source; Field Marshal Lord Roberts, Letters written during the Indian Mutiny by Fred. Roberts, afterwards Field-Marshall Earl Roberts, with a preface by his daughter Countess Roberts *(London, 1924); G.W. Forrest, The Life of Lord Roberts (London, 1914), preface, p.v.*

Nearing Delhi they heard the sound of guns and saw dead sepoys on the road. The mail cart driver would go no further, and the three young officers finished their journey on the cart's horses. On 28th June they joined the besiegers on the historic ridge outside Delhi. Tired after his journey, Roberts threw himself on the ground under canvas and slept. He wrote to his parents with eager anticipation: 'What I want more than any other is the Victoria Cross [underlined]. Oh! If I can only manage that, how jolly I would be.' He was among friends, Jemmy Hills from Addiscombe, Edwin Johnson a Bengal Horse Artilleryman, Donald Stewart to be a very close friend, and Henry Norman, later a remarkable military administrator. To them he was 'little Bobs,' five foot four inches. Three of them, Roberts, Stewart and Norman, would become field marshals. Norman wrote, 'Few comrades were ever together more…We were all quite confident of success, and never doubted that our assault on Delhi would be successful, if delivered after a bombardment from siege guns and mortars…'[3]

ROBERTS' EARLY LIFE

I shall now briefly leave Roberts on the Delhi Ridge and cover his early life.[4] He was born in Cawnpore, India in 1832 to Abraham Roberts in the East India Company's Army and his second wife, Isabella, widow of a closer friend Major Maxwell. They were respectively 44 and 26 years old. Geoffrey Moorhouse, historian of India, wrote that Isabella's mother was a Rajput.[5] This is incorrect. Her ancestry was Scots; Abraham Roberts's was Irish. However, before his first previous marriage, Abraham Roberts had spread his wild oats and had three children by an Indian woman. Two were sons, one manufacturing gun carriages for the Army of Oudh and one serving in its army.[6] This is typical of the time. In his book *The Nabobs*, Percival Spear described this change as the 19th century progressed and the memsahibs arrived, intimacy with Indian women disappeared and the British became a segregated ruling caste.[7] Roberts' wife Nora was a memsahib, but more than a memsahib; she started Indian Army nursing. The Irish side of his family came from Waterford in southern Ireland, and if you visit that pleasant town you can see the houses which they occupied.

General Sir Abraham Roberts

Roberts was a delicate child, nearly died and lost the sight of an eye. He was always small. He attended a number of schools including Eton for a year, typical in those days, Eton had not attained its pre-eminence, and it appears his mother wanted to prepare him for a profession. He later told his daughters he had always wanted to be a soldier.[8] He entered Sandhurst in 1847, which was appalling in those days: barely 200 cadets attended, bullying was endemic, and rioting in the nearby town was customary. Following a gap at a crammer, his parents moved him to the East India Company Seminary at Addiscombe as it was called because in his father's words 'he [father] was acquainted with no one in the Queen's service, whereas should the boy transfer to the other army, he would be serving under leaders well known to him'. The young Roberts suffered from indifferent health including a heart complaint, and was allowed to have sherry by his bed at night. He passed out with good marks, sufficient to join the artillery but not the engineers, and his father rewarded him with £50 and a gold watch.

He travelled to India in 1852, firstly spending a dispiriting time at Dum Dum, very homesick and lonely, but then fortunately transferred to Peshawar to join his father. Peshawar was the largest garrison on the North-West Frontier. There he joined the Bengal Horse Artillery and won the coveted jacket of these elite Gunners. A brief visit to Simla for his health introduced him to the QMG's department; this was the brains of the EIC's army (and later the Indian Army), responsible not just for logistics and supply, but also intelligence and operations. It was here following his father's advice that Roberts would make his career.

Other young officers noted how he took his profession seriously. In his autobiography *Forty-One Years in India* he said how much he hated seeing flogging inflicted as a punishment.[9]

DELHI

We now return to the Delhi Ridge. The British on the ridge were outnumbered by the 30,000 defenders in Delhi.[10] The sepoys launched sorties from the city. On 14th July, Roberts played a part in repelling one, receiving a shot in the back which penetrated his leather ammunition pouch, but did not injure his back. News arrived of the massacre of British women and children at Cawnpore, their bodies thrown down a well. Roberts shared in the intense anger and vowing revenge. Already Colonel James Neill's column had been hanging Indians indiscriminately, and now vengeance became widespread.[11]

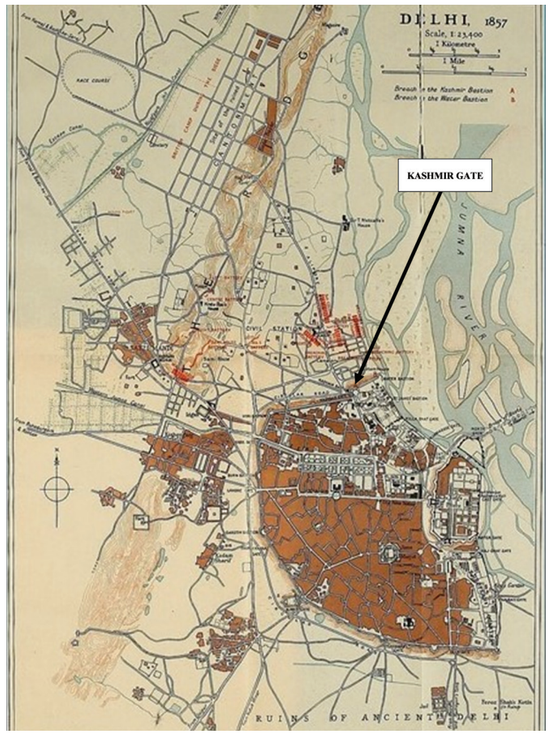
To make breaches in Delhi's defence, heavy guns were needed. John Nicholson brought in the siege train, 32 howitzers and heavy mortars and over 100 bullock carts of ammunition. Batteries were constructed to batter the walls. Roberts was assigned to No 2 Battery, commanding the two right hand guns, bringing fire onto the Kashmir Bastion. (This was the only time he directly commanded artillery during his career).

On the morning of 14th September four columns fell in for the attack. Engineers blew in the Kashmir Gate. Roberts wrote: 'Our men went off beautifully like a pack of hounds.' In the fighting, the British forces gained the upper hand, but their inspirational leader Nicholson, Roberts's hero, was fatally wounded. After six days of fierce fighting and nearly a thousand dead, the city was taken. The battle was marked by random massacres of sepoys and civilians, held responsible for the murder of Europeans four months before. Roberts

3. W. Lee-Warner, The Life of Field Marshal Sir Henry Wyllie Norman *(London, 1908).*
4. Unless otherwise noted, Roberts's life is taken from his autobiographical Forty-One Years in India *(London, 1897), David James,* Lord Roberts *(London, 1954), and* The Life of Field Marshal Lord Roberts *(London, 2015).*
5. G. Moorhouse, India Britannica *(London 1983), p.184. Family information based on researches of Lt Col Roger Ayers contradicts.*
6. R.B. Saksena, European & Indo-European Poets of Urdu & Persian *(Lucknow, 1941)*
7. P. Spear, The Nabobs *(Oxford University Press, 1932).*
8. Preface of Indian Mutiny Letters *and* The Times, *30 September, 1932, p. 13,* 'Field Marshal Lord Roberts – Field Marshal and Reformer – Some Personal memories' *by Brigadier General H.F.E. Lewin. Lewin was married to Roberts's younger daughter Edwina.*
9. Forty-One Years, *p. 14.*
10. Spies later reported the number fell to 20,000. Hibbert, The Great Mutiny, *p. 290.*
11. See Neill's own words in Saul David, The Indian Mutiny 1857 *(Penguin Books, 2002), p. 259.*

wrote: "Yesterday I found a portmanteau with 'Miss Jennings' on it. Her Father was a Clergyman here. She was an extremely pretty girl and was murdered coming out of church on the 11th May." The commander of the attacking forces, Brigadier Archdale Wilson, gave orders to 'spare all women and children,' and Roberts did his part, telling his mother in a letter: "I was just in time this morning to save the lives of two poor Native women. They were both wounded and had concealed themselves in a little house. Another hour and both I believe would have died from exhaustion; when I gave them some water, they were so grateful, for they seemed to expect I should kill them."[12]

The capture of Delhi was a decisive blow. The rest of Roberts' mutiny service was a denouement, but a stirring one. He was attached to a Movable Column as a staff officer in the QMG's Department. His duties included marking out the evening's campsite, but he and



Map 2. Delhi 1957 @ Wikipedia

Henry Norman also on the staff, managed to be at the forefront. He had another close escape. At Bolundshur a sepoy took deliberate aim from a window a few feet away, but Roberts's horse reared up at that moment and took the bullet intended for his rider. "Lucky his head was in the way," he told his mother, "or I should have caught it."[13] Earlier a round shot had narrowly missed him. In October he was again in the heat of the fighting, mentioned twice in despatches. Colin Campbell took command of the column and resolved to relieve Lucknow, besieged since 1st July. The march began on 12th November. Campbell gave him a vital task, to take 300 camels and 150 cavalry on 'a horrid dark night' and bring all the rifle ammunition, which had been left behind. By daylight that next morning, he returned safely with the ammunition, hastily breakfasted, and then led the column towards its objective, the Secunderbagh, a strongly walled enclosure 150 yards square, like a fortified castle. This and two other strong

Fig 3. Siege of Delhi from the Delhi Ridge. Kashmir Gate on near side of city walls.

points fell. The column was able to open communications with the garrison, and in the following days the wounded and women and children were evacuated, followed by the garrison.[14]

The column next advanced towards Fategarh. Infantry and guns were in front, followed by the cavalry in two lines, Roberts in the first line. He spotted two sepoys making off with a regimental standard, pursued and overtook them, and wrenching the standard from one, cut him down. The other put his musket close to Roberts's face and squeezed the trigger; it failed to fire [misfire] and Roberts carried away his trophy. Next he came to the aid of a sowar [Indian cavalryman] engaging a sepoy [Infantryman with musket and bayonet]. He rode straight at the sepoy and with one stroke of his sword slashed him across the face, killing him instantly. Roberts had shown courage and quick thinking, but for these acts alone he would not have won the Victoria Cross. The citation begins: 'repeated gallantry in the field.' He had been fortunate to be in the eyes of senior commanders, as he was on the staff. His commander on this occasion, Hope Grant, wrote in his letter of 8 February 1858: "Lieutenant Roberts' gallantry has on every occasion been most marked."[15]

Fig 4. Roberts recapturing the regimental standard

To his mother he wrote exulting: "Is this not glorious? How pleased it will make the General [father] such a medal to wear with 'For Valour' scrolled on it. How proud I shall be, darling Mother, when I show it to you…."

Roberts was part of a flying column sent out to capture a small fortified town on the old Cawnpore-Lucknow road where 2,000 of the rebels were ensconced. The town was stormed and the next day Roberts supervised razing the town's wall and nearby houses. Nearly all the houses had been burnt when he went into the town.

12. Roberts Papers 8310-155-11; printed in Mutiny Letters, *p.61*
13. Roberts papers 8310-155-13. It was his 25th birthday, 30 September, 1857.
14. Roberts in Forty-One Years, *pp.169 gives a very full account of the dramatic Lucknow episode.*
15. Roberts papers 8310-155-25, 25 February, 1858; Mutiny Letters, *p. 135; the citation in Roberts Papers 5304-64, no 15.*

A very old man approached him, saying how three of his five sons had been killed and showing the bodies. "For God's sake, don't burn the only property I have in the world." Roberts had not the heart to burn the house. Going on further, he came on three women watching the dead bodies of their husbands. The sight made him wish most sincerely that "this horrid war was at an end…it does make one melancholy to come across such incidents…" Captain Oliver Jones of the Naval Brigade relates this story and praised Roberts' 'cheering and unaffected kindness.'[16]

Roberts' health now gave out and he was ordered to return to England. He embarked on the P&O Steamer at Calcutta on 3rd May 1858. The Mutiny experience of 1857 remained with him throughout his life. General Sir Edward Hamley, strategist and historian, wrote that for a soldier of Roberts's quality, nothing could have been more fortunate than the succession of events. It was a most valuable training for future command. In less than a year, he had seen harrowing sights enough for a lifetime and been within inches of death. Today he would be a candidate for a course of post traumatic stress therapy. Yet he went on to a career of continued danger, lacking neither physical nor moral courage. He proudly wrote to Sir Abraham: 'So, father, it has been worth all your money and trouble spent on your son…When you were in India, I was young and giddy. I am different now, and if I live hope to be a General, KCB and all sorts of things.'[17]

Marriage: We know nothing of his wooing, but he had written to his sister Harriet: "You must look out for some nice girl with "blue eyes and yellow hair" for me Harriet, dearest, who will console me for having to return [after my leave] to the gorgeous east." His bride, Nora Henrietta Bews, was the tenth and youngest child of a retired army officer and Constabulary paymaster, by then deceased. He was 27, she was 20, and the marriage lasted 55 years. Did she have great expectations in this young officer? Very likely. His new confidence marked a striking difference from the homesick young man who had reached Bombay six years before. When Roberts and his bride returned to India, Lieutenant Owen Burne on the Viceroy's staff wrote: 'Fred Roberts who joined us as a Deputy Quartermaster General had come to Simla to join the Headquarters staff with a charming bride, who proved a great accession to our select circle, as being not only handsome, but full of goodness and brightness.'[18]

Changes in India: The East Company rule was abolished. The Government of India Act of 1858 established a Secretary of State for India and a government department, only a telegraph line away from Calcutta and Simla. From the EIC's sepoy regiments the Indian Army was founded with Indian rank and file and NCOs, and British officers. The European soldiers were to be transferred to the Queen's service, but this provoked 'a white Mutiny.' Widespread discontent forced the government to allow the men to take their discharge and return to Britain, and over 10,000 of 15,000 did so. It was at this point that Roberts joined the Royal Artillery.

1863 NW FRONTIER EXPEDITION TO SITANA NE OF PESHAWAR

Roberts' former commander in the Punjab, Neville Chamberlain, was to lead an expedition of 5,400 men against Muslim extremists in mountainous territory NE of Peshawar. The column was burdened with a lumbering column of bullock carts and a host of camp followers. The trouble spread to the remote Swat Valley where the Akhond was convinced he must intervene against the infidels.[19]

The neighbouring Bunerwals were also in rebellion. Chamberlain and his 2IC were both wounded and the government was going to withdraw the force, but the Commander in Chief, Sir Hugh Rose, thought the loss of prestige would be too great, and two experienced staff officers of the army were to go up to the Umbeyla Pass and report. They were Colonel John Adye and Major Fred Roberts, and they reported against withdrawal. In the subsequent fighting, Roberts and a fellow officer were at the forefront, rallying a Pioneer Regiment. The village of Malka was set alight, completely burnt except the mosque. It was the largest and fiercest fought frontier campaign to date: of the British and Indians 238 were killed and 670 wounded. Estimates of their enemy's losses were 3000. Roberts and Adye were both mentioned in despatches. New looser fighting formations were adopted for the frontier giving initiative to junior officers.[20]

1867-8 NAPIER'S ABYSSINIAN EXPEDITION

Robert Napier was an engineer officer with service in the two Sikh Wars, in the fighting of 1857, and in China. As a Major General he commanded the Bombay Army. In 1867, following a muddled diplomatic crisis (I shall omit the details), he was put in command of an expedition to Abyssinia to rescue hostages in the control of King Tewodros, 'mad King Theodore,' in his mountain fortress of Magdala. This expedition took months of planning; an engineer advanced party landed at Taku Bay. It was a typical Victorian expedition in

Fig 5. Storming of Umbeyla Pass 1863. © NAM 94753

which climate, disease and topography were greater opponents than the enemy. What was Roberts's role? The new CinC Mansfield recommended Roberts, knowing his keenness to take part: 'This officer is eminently qualified for the appointment by his activity and well known military qualities, as well as by his experience in the Quarter Master General's Department in war and peace for nearly ten years.' He was to be responsible for organisation and logistics. He arranged with his friend, Donald Stewart, commanding the Bengal troops, a special system of loading whereby each detachment embarked complete with mules and camp equipage in the same vessels.

As we have seen, Roberts always tried to be at the forefront of the fighting. On this expedition, as organiser of supplies and transport, he was at the base at Taku Bay. His notebooks contained information

16. Roberts Papers 8310-155-25, 25 February, 1858; Captain O. Jones, Recollections of a Winter Campaign in India, 1857-1858 *(London, 1859), p. 145.*
17. Roberts Papers 8310-155-26, 12 March, 1858; Mutiny Letters, *pp. 148-9.*
18. Major-General Sir Owen Tudor Burne, Memories *(London, 1907), pp. 48 & 50.*
19. About this extraordinarily named figure Edward Lear wrote humorous verses beginning 'Who, or why, or which, or what, is the Akond [sic] of Swat?'
20. Accounts of the expedition in Roberts, Forty-One Years in India *pp. 80-93 and Captain H.L. Neville,* Campaigns on the North-West Frontier *(modern reprint, The Naval & Military Press, Uckfield, E. Sussex, 2005, orig. publ. 1912), pp. 50-62. Neville was in the Royal field Artillery.*

such as an elephant requiring 60 gallons of water per day, a horse or mule only 6. For four months Roberts, Captain George Tryon, later an admiral, and the QMG's staff laboured in intense heat with limited water but an unlimited number of scorpions, in support of the expedition of 13,000 troops, 26,000 followers and over 40,000 animals including elephants. The final engagement at Magdala was an anti climax, the advancing British and Baluchis shot the enemy to pieces and stormed Magdala. Tewodros had shot himself, the captives were released, and the force re-embarked. Napier had diplomatically made it clear to local chieftains who did not like Tewodros that there was no intent to annex Abyssinia.[21]

Fig 6. Sir Robert Napier

Roberts was pleased to receive Napier's letter affirming that he had 'received with pleasure most favourable reports regarding the able and energetic manner [Roberts] has carried out the duties of his department.' Napier paid Roberts the compliment of appointing him to take his dispatches to London. Reaching his London club, he found a note from his old Delhi comrade, Edwin Johnson, secretary to the CinC, the Duke of Cambridge, to take the dispatches immediately to the Secretary of State for India, Stafford Northcote. Roberts took them, Northcote read them and told Roberts to take them without delay to the Duke. Roberts did so, but at Cambridge's home a servant told him it was impossible to interrupt a dinner at which the Duke was entertaining the Prince and Princess of Wales. He sent in the dispatches, but not missing a trick put his calling card on top. He had scarcely returned to his club when an ADC appeared with orders to bring him back. Roberts takes up the story: "The Commander in Chief received me

Fig 7. The Stronghold of Emperor Tewodros II at Magdala © Wikipedia

very kindly, and their Royal Highnesses the Prince and Princess of Wales were most gracious, and asked many questions about the Abyssinian Expedition."[22]

For an ambitious officer, there can hardly have been a better result to four months' hard work in scorching heat.

1871 EXPEDITION AGAINST THE LUSHAIS IN ASSAM N OF CHITTAGONG

Napier became Indian Army Commander in Chief and Roberts' next important patron. Some of the things that he organised Roberts would copy: camps of exercises, ie manoeuvres, strengthening defences against possible Russian incursion, encouraging temperance thus reducing crime from drunkenness, and care for soldiers.

Napier gave Roberts the job of organising and then accompanying the expedition against the Lushais in the forests of Assam in NE India. The Lushai lived in a belt of high mountain ranges north of Chittagong. From 1850 they made a series of raids on tea gardens in Assam, carrying off hostages. These raids intensified on 1868-9. A small expedition failed to find the Lushai and attempts to negotiate with the chief Lushai also failed. The Lushai murdered coolies working on the tea, murdered a planter and carried off his 6 year old daughter.

Two columns were readied for June 1871, to work in cooperation with the forces of two local Rajahs. Each column had 1,500 picked Indian and Gurkha soldiers, half a mountain battery with two guns and two mortars carried on elephants, and a company of sappers and miners to overcome obstacles. Some 1400 coolies in each carried baggage. Roberts did not command either column, but was active nonetheless, despite intense heat and difficult country, rolling hills and dense forest, creepers, watercourses and numerous rivers.

In the first serious action in 1872 Roberts was sent to destroy a village from which an attack had been launched. Coolies carried two guns with rounds for each as the way was too steep for the elephants. Marching three miles over this difficult country, his small force came upon a stockade packed with armed men, a sheer mountain on one side, a steep ravine on the other. Roberts turned the enemy's flank by advancing along the precipitous 6000-foot-high mountainside. The second of two shells fired burst with the utmost accuracy in the centre of the village where the enemy were in a dense mass, and sent them into the forest in confused flight. The bamboo houses were searched, found empty and set alight. News soon arrived that the 6 year old girl had been handed back. The other column advanced to a remote village, and in a complete change of mood the Lushai greeted them as friends. Three chiefs were surrendered as hostages for good behaviour, firearms were also given up, and a fine imposed of elephant tusks, goats, pigs, fowls and chiefs' necklaces. Upwards of 150 captives were also surrendered. Brigadier Brownlow reported: 'the complete subjection of two powerful tribes, who inhabited upwards of sixty villages.'

Of Roberts's work, he wrote: "Lieutenant Colonel Roberts' untiring energy and sagacity are beyond all praise; working without guides, even without map and geography, he never seemed at a loss. Whether piloting the advance guard through the trackless forest, or solving a commissariat or transport difficulty, his powerful aid was willingly given."[23]

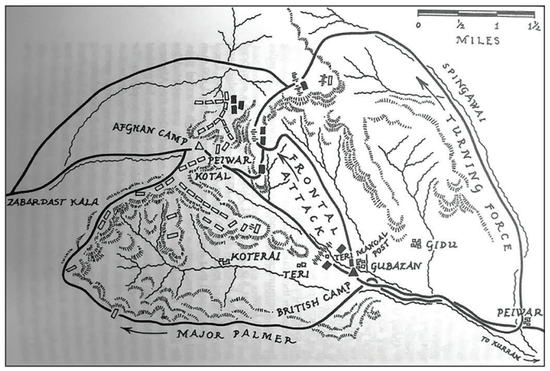
THE SECOND AFGHAN WAR 1878-1880

We now approach the chief of Roberts's Indian Wars. The stage was set with the election of Disraeli's Conservative ministry in 1874 with, at least avowedly, a forward looking foreign policy.

21. Account of the expedition in chapter 4 of Stephen Miller, Queen Victoria's Wars (Cambridge University Press, 2021).
22. Roberts's part is in Forty-One Years in India, pp. 295-302.
23. Brownlow quoted in Charles Rathbone Low, Major-General Sir Frederick Roberts Bart, V.C., G.C.B, C.I.E., R.A. A Memoir *(London, W.H. Allen, 1883), p. 126; account of the expedition in* Forty-One Years in India, *pp. 310-318.*

Lord Lytton was chosen as Governor General (Viceroy) with two purposes: to hold a grand ceremonial Durbar (Court of Indian Ruler) to proclaim Victoria Empress of India and to establish good working relations with the Afghan Amir. He was not ordered to start a war, but he did. The Durbar was a success, in part because of Roberts's organisation.

Relations with the Afghans broke down when a Russian mission appeared to have been welcomed at Kabul and a British mission was turned back at the Khyber Pass. No formal apology was immediately forthcoming. Disraeli's government reluctantly decided they had to support their Viceroy. A three pronged British invasion began, not to conquer the country because, as Donald Stewart said, 'the force of 36,000 was too weak, but strong enough to ensure the Amir did not make friends with people who can damage us, i.e. the Russians. Secure a friendly buffer.' Against them the Afghans could now deploy regular troops, partly equipped and trained by ex-Indian Army NCOs. [24]



Map 3. Peiwar Kotal 2 December 1878

Of the three columns, Donald Stewart's column advanced through the Bolan Pass and occupied Kandahar; Sam Browne's (one armed VC hero and designer of the belt) took the fort at the head of the Khyber Pass (see Map 1). Roberts had been promoted over the heads of senior officers to command the third attacking column, which was the smallest, meeting the toughest fighting at the Peiwar Kotal, a mountain pass, and he employed tactics which were to serve him well. Feinting at the enemy's front, he led a force by a night march around the enemy flank over precipitous mountain passes. The Afghans were routed from a position which some of them may have regarded as impregnable, held by superior numbers and with plenty of artillery.[25]

The first campaign of the war ended with the flight and death of the Amir Sher Ali. His son Yakub signed the treaty of Gandamak, pledging to live 'in perfect peace and friendship' with India and to conduct his foreign relations in accordance with British wishes. An embassy was sent by Lytton to Kabul, four Englishmen and seventy men of the elite regiment of Guides under Major Louis Cavagnari.

On 3rd September, 1880 unpaid Afghan regiments rose in anger against the foreigners demanding that they pay the arrears they were due. The soldiers were supported by the badmashes of the city. After heroic resistance against impossible odds, Cavagnari and his escort were all killed, the last few Guides charging out and striking down enemies on every side. Roberts was lucky as his was the body of troops in the best position to advance and avenge the massacre. His force was small and his transport so weak that he could

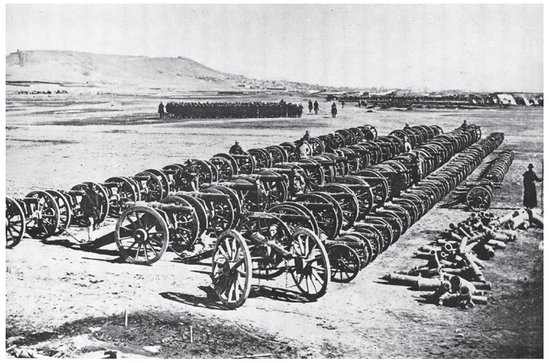


Figure 8. The Amir's artillery park

move only half of it at a time. His two Gatling Guns were ineffective, Nonetheless, his brilliant march and victory on the Charasiab Heights outside Kabul enabled him to occupy the city. There they found the Amir's artillery park, evidence Roberts believed of hostile intentions. He secured these 76 guns, a wise decision, depriving the Afghans of much possible future firepower.

Roberts was urged by the Viceroy, Lord Lytton, to find the culprits behind the massacre of Cavagnari and his escort. Lytton had been close to Cavagnari, and his angry instructions to Roberts were explicit: "All such persons captured and denounced by your informants should be promptly executed in the manner most likely to impress the population…For remember, it is not justice in the ordinary sense, but retribution that you have to administer on reaching Kabul…."[26]

In addition to these harsh instructions, there was the scene of Cavagnari's last stand with bloodstains on the walls of the buildings of the Bala Hissar where the Guides had fought to the last, bullet holes, skulls and bones of mutilated corpses and signs of a desperate struggle. As a young subaltern Roberts had watched mutinous sepoys blown from the mouths of cannon, and having been a friend of Cavagnari, he was only too willing to carry out Lytton's orders. Brian Robson in his book *The Road to Kabul* argues that what happened next was the dark side of Roberts' part in the war, testimony to a streak of harshness. Lytton had expected evidence to show the guilt of important men, but none could be found. The only important man executed was the *Kotwal* (Chief Constable) of Kabul, who had ordered the bodies of the Guides and the Englishmen dragged out

24. Background to the war in T.A. Heathcote, The Afghan Wars 1839-1919 *(Spellmount, Staplehurst, 2003; 1st publ. 1980), pp. 91ff. Tony Heathcote has been a member of the society and helped the author with his work on Roberts. For the Afghan viewpoint:* Afghanistan: A Political and Cultural History. *2nd Ed Pub Princeton University 2022.*
25. Accounts of this and Roberts's other Afghan victories are in Heathcote, Afghan Wars*; The British Library India Office papers IOL, L/MIL/5/678-688 military correspondence, Second Afghan War; Low,* Major-General Sir Frederick Roberts*;*
26. Quoted and with background in Brian Robson, Roberts in India. The Military Papers of Field Marshal Lord Roberts 1876-1893 *(Army Records Society, Stroud, Glos, 1993), pp. 119-122.*

and thrown into a ditch. So it was ordinary Afghans who were hanged on the two tall gallows which Roberts erected outside the walls of Kabul. The Official History recorded the trials of 163 and the hanging of 87, but others were shot arbitrarily for resisting. Roberts' Chief of Staff, Colonel Charles Metcalfe MacGregor confided to his diary: "Bobs is a cruel bloodthirsty little brute;" this has been quoted by academic historians, but overwhelmingly Roberts had the support of his other officers and his men, who if asked would have said it was the Afghans who were cruel and bloodthirsty. News correspondent Howard Hensman and Surgeon Colonel Joshua Duke commented on the proverbial treachery of the Afghans and the mutilation of the bodies of dead Indian and British soldiers.[27]

Figure 9. Bala Hissar Fort, Kabul

However, the Victorian media thought that the British sense of fair play had been broken. In November, 1879 English newspapers in India began to protest. The Friend of India, a prominent Calcutta journal ended an article: "We fear that General Roberts has done us a serious national injury by lowering our reputation for justice in the eyes of Europe." The repercussions spread to Britain. Frederic Harrison was the bitterest critic, author of 'Martial Law at Kabul' in the radical John Morley's Fortnightly Review. Telegrams from Calcutta from men close to Lytton warned Roberts to avoid undue severity dealing with Afghan insurgents. Lytton, having issued the orders for vengeance, was now repenting.

Roberts however soon had other things to think about. He was faced with a widespread Afghan uprising. After severe fighting, his men were driven back from the surrounding hills and in the fighting he was unhorsed and narrowly escaped death. He withdrew from Kabul into the fortified camp of Sherpur near the city. The Afghans,

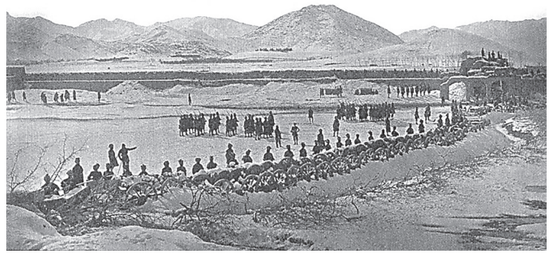


Fig 10. Sherpur Fortified Camp, near Kabul

urged on by their holy men, wished to repeat the success of the 1st Afghan War when a retreating British and Indian force (actually brigade strength, not an army as often reported) had been destroyed. Roberts was equal to the occasion and his intelligence was good. He was warned of a coming mass attack and stood his men to at first light of the morning of 23rd December, 1879.

They heard the cries of 'Allah ul-Allah' and the slapping of Afghans sandals on the packed snow, and fired starshell to illuminate thousands of attackers with assault ladders. Roberts' men brought down a well directed fire, driving back the attackers. Roberts daringly sent out artillery to enfilade the Afghans and then cavalry in pursuit.

Despite winning another victory, however, Roberts might have ended the Afghan War in disgrace. The election of 1880 had brought Gladstone's Liberals to power, and in place of Lytton as Viceroy they appointed Lord Ripon who had criticised the Kabul executions. In the spring of 1880, General Donald Stewart, Roberts's old friend, senior to him, marched from Kandahar to Kabul to assume command, to Roberts's chagrin. He told Lytton, still in India, that he wished to resign and to retire from the theatre of war. He pleaded poor health. Lytton told him this would be interpreted to his disadvantage, and persuaded him not to do so.[28] This was fortunate, for Roberts would soon have his great opportunity.

Negotiations were already under way to recognise Sher Ali's nephew, Abdur Rahman, as Amir, and to withdraw the troops, when news reached Kabul of the disastrous defeat of an Anglo-Indian brigade at Maiwand, west of Kandahar, on 27th July, by Ayub Khan. Ayub was Abdur Rahman's rival for control of the Afghan government, a good general although he did have a huge superiority in numbers. The entire Afghan situation was at risk. Stewart unselfishly stood down and Ripon, despite his hostility to Roberts's political dealings, knew a successful fighting general when he read of one. He had orders given that Roberts take a picked force and march to Kandahar to defeat Ayub.

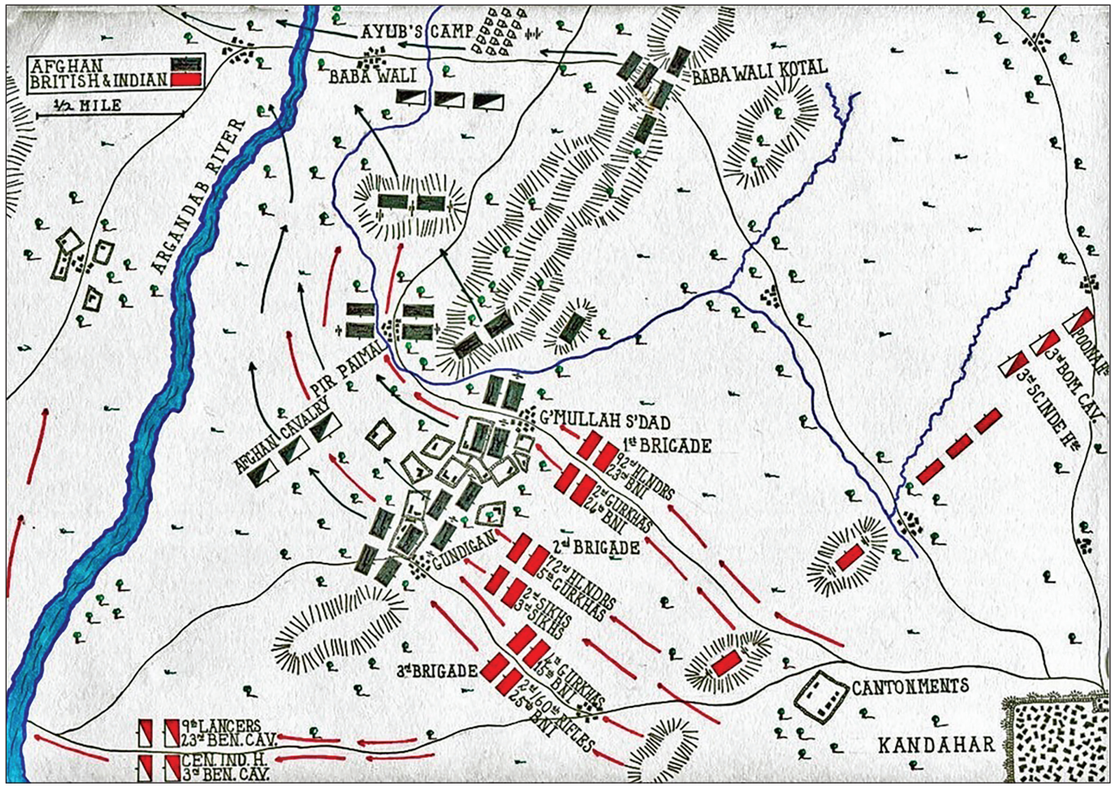
The famous 300 miles, 23 day march from Kabul to Kandahar with 10,000 elite troops, 8000 followers and 10,000 pack animals and the ensuing victory over Ayub made Roberts's reputation. He was fortunate to have as his chief of staff Colonel Edward Chapman who had made the march in reverse direction with Stewart. On the march, Abdur Rahman's supporters provided logistical support including pulling down and burning the local houses for their campfires.

As the march neared Kandahar, Roberts was stricken with what he told his wife was a fever, but a later medical examination found to be a duodenal ulcer. He was completely prostrate for four days and he had to travel in a doolie, a conveyance for the wounded. He was not going to enter Kandahar in a doolie, however, and as they approached the city, he mounted his grey 'Vonolel', named for a border chieftain, and led his men in. A reconnaissance in force by his cavalry commander Hugh Gough gave Ayub and his men the impression that they had won the first round, and they stayed to fight instead of retreating to the hills. On 1st September Roberts's men with the Gurkhas and Highlanders in front routed Ayub's army, took his camp and his 32 guns. The march and victory caught the public imagination and made 'little Bobs' reputation.[29]

British India had with Roberts's victory recovered prestige lost at Maiwand, but it needed another defeat of Ayub, this time by Abdur, to secure Afghanistan for the British man. There followed thirty nine years of friendship between British India and Afghanistan until 1919.

27. Macgregor's note in William Trousdale, ***War in Afghanistan 1879-1880: The Personal diary of Major-General Sir Charles Metcalfe MacGregor*** *(Detroit, 1985), pp. 108, 113-4. For varying points of view, see the present author's* The Life of Field Marshal Lord Roberts *(London, Bloomsbury, 2015), pp. 92-3.*
28. Heathcote, Afghan Wars*, pp. 143-4.*
29. For march and battle, Ibid, pp.159-162; Eaton Travers, 'Kabul to Kandahar, 1880: Extracts from the Diary of Lieutenant E.A. Travers, 2nd PWO Gurkhas,' *Journal of the Society of Army Historical Research, vol 59 (1981), pp. 207-228; vol 60 (1982), pp. 35-43.*

The Journal of the Royal Artillery
Indian Campaigns of Lord Roberts VC



Map 4. Kandahar 1880 © British Battles

Abdur died in 1901, succeeded by his son Habibullah. The latter was assassinated in 1919, and his own third son, Amanullah, proclaimed a Jihad against the British. The war lasted a month, and by the treaty which ended it, Afghanistan recovered control of its foreign policy from British India.[30]

Charles Metcalfe Macgregor, who spent most of his journal trying to run down Roberts, wrote: "What a lucky devil he is, two or three years ago he was a Colonel, now he will be a peer, a Lieutenant General and Commander in Chief of one of the Presidencies."[31] MacGregor was right about the last, Roberts taking the Madras command in 1881. In 1885 he succeeded his friend Donald Stewart as overall Commander in Chief, for eight years. And this brings us to his last Indian War, in Burma.

3RD BURMESE WAR 1886[32]

There had been two previous Anglo-Burmese Wars 1824-26 and 1852-3, both initiated by the Burmese who seem to have had little awareness of European strength. Parts of Burma (today Myanmar) were annexed; more casualties were caused by disease rather than the Burmese. The third war followed agitation by British merchants that Burma be opened to British trade and an unjust fine imposed on the Bombay Burmah Trading Corporation. Also complicating the situation was King Thibaw's dallying with an alliance with France. A Burma Field Force of 10,000 men invaded in autumn 1885; Burmese forts on the Irrawaddy were no match for British floating batteries. The Burmese surrendered unconditionally on 17th November, Mandalay was occupied and the King and Queen were deposed and deported. Viceroy Dufferin annexed Burma on 1st January 1886 as a New Year's present to the Queen. Casualties were slight, mostly from cholera, but Victorian Britain had just embarked on its longest war. Burmese soldiers who had occupied Mandalay and its forts were thrown out of work when their army was disbanded, the same mistake as the Americans made in Iraq, and they joined 'the lawless hill-men' as bandits or dacoits. (originally a Hindi word meaning armed robber). There was also a scandal when Moylan, the Times correspondent, waged a vendetta against the Royal Engineer Prendergast, who had commanded the Burma Field Force. This was about over exaggerated looting, disorder and photographing of Burmese insurgents being executed by firing squad. Prendergast was removed by the Liberal government, his successor Herbert Macpherson died of fever and Colonel George White took over.

Public opinion in Britain needed reassurance, and Roberts was sent, not to run things but to reassure this opinion. He did issue instructions to those commanding columns pursuing dacoits, ordered that the Surgeon Major in charge of the military hospital be replaced, and cultivated the influential saffron robed priests. George White planned to work up the two great rivers, the Irrawaddy and the Chindwin and get a firm grip on the country by establishing mutually supporting military posts. Roberts did not stay long, handing over to White once sufficient was done to calm public opinion. In Roberts's autobiographical Forty-One Years in India Burma occupies only three pages and an appendix out of 500.

The Third Burmese War was a subalterns' war, with units of 120 mounted infantry moving through apparently endless jungle in pursuit of an elusive foe. It took five years to bring peace to Burma. Occupying the capital did not end a long guerrilla war, a point which Roberts would ignore in South Africa.

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POSTSCRIPT

I have got to the end of my story, but may I add a very brief double postscript. In late 1899, Roberts was appointed to take command against the Boers in South Africa, relieving Redvers Buller. Two days before Christmas, the great and the good came to see him off at Waterloo Station: the Prince of Wales, Dukes of Connaught and Cambridge, and Arthur Balfour, Lansdowne Secretary of State for War. But the old comrades of the Delhi Ridge were also there to wish 'little Bobs' a victorious campaign: Donald Stewart, Henry Norman, and James Hills-Johnes, a special friend. In the person of the little field marshal, the no longer existing Bengal Army (amalgamated with the other Presidency armies in the 1890s) was leading the forces of the empire. His wife, his two daughters and some of his Indian comrades accompanied him to Southampton. As he boarded the Dunottar Castle, he saw an Afghan War Medal, known as the Roberts' Star, on a harbour constable's jacket and stopped to talk to the veteran.

Roberts lived on until the First World War. He died of a chill aged 82 in November 1914, visiting Indian soldiers on the Western Front, 'the three happiest days of his life,' according to an admirer, Leo Amery.

His younger daughter Edwina wrote to thank a friend Colonel James Dunlop-Smith, who offered to answer the enormous correspondence of condolence from India: "You are so kind & I know you loved father; there was no one like him and it is impossible to believe he is not there to tell all one's troubles & joys to. But he was so happy in France and his leaving was very perfect. No pain & so near the Army he loved."

This was of course the Indian Army.

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QUESTIONS

Question: Do you know what Roberts felt about being transferred from Indian service to Imperial service after the Mutiny?

Lecturer: No, I don't know, and I don't remember reading a document which expressed his views. He is ambitious and he's keen to get on. But he can see the writing on the wall. Things had already moved towards that sort of solution. People like William Dalrymple write about India being governed by a multinational company. In 1833, the East India Company stops trading in India; it is just an organization by which India is run with its own army, its fleet and its politicals, as they are called. These are men who are seconded to be political officers to go to the different Rajahs' courts and so on.

My guess is that he saw what was going to happen and decided not to fight against the inevitable. He was going to make his career in the British army obviously and one hopes he was really pleased to join the Royal Regiment.

David Rowlands: A lot of people have accused Lord Roberts of pretty much destroying the Bala Hissar Fort at Kabul. I have also read that that is not true and he did not deliberately demolish it.

Lecturer: As far as I know he did not deliberately destroy the Bala Hissar Fort.[33] There is a contemporary photograph in the 1950s biography of Lord Roberts showing the Bala Hissar Fort and it is intact. It could have been restored but, so far as I know, he didn't destroy it.

When they entered the fort, not only were they acting on Lytton's orders, but they could see the scene where the 70 men of the Queen's Own Corps of Guides and the four Englishmen had fought to the last against overwhelming odds for eight hours. They fought heroically. Roberts said that this was the most wonderful, bravest thing any unit of any army had ever done. The blood stains on the walls were still there. The Kotwal, the Chief Constable, ordered the bodies chucked into a ditch. There were skulls and signs of this desperate struggle. This obviously increased the anger of the British when they saw it. If anything, the action that Roberts takes against them, while newspaper men may not like it, the soldiers think that this is the way to treat those guys for sure.

Shrapnel Chairman, Michael Phillips: It is said that, when Roberts left the War Office, there were great changes in the air such as the abolition of the office of Commander in Chief of the Forces and various other things. Works were going on and scaffolding was being erected. Roberts said: "What's happening here?" And the reply was that this is the new lot coming to hang the old lot.

Rodney thank you very much for that comprehensive review of one of the greatest Gunners that has ever been. Rodney has written three books on Roberts so far and is heavily involved at the moment in the editing and redrafting of Martin Farndale's History of the Royal Artillery in the WW2 North African campaign aided by James Gower. So the Society owes you a great debt.

Thank you very much indeed.

30. Heathcote, Afghan Wars*, pp. 165ff.*
31. Trousdale, War in Afghanistan*, p. 144.*
32. For this war, see Martin Jones, 'The War of Lost Footsteps: a Re-assessment of the Third Burmese War,' *Bulletin of the Military Historical Society, vol. xxxx, no. 157 (August, 1989), pp.36-40 and A.T.Q. Stewart,* The Pagoda War: Lord Dufferin and the fall of the Kingdom of Ava 1885-6. *(Faber, London, 1972).*

33. Bala Hissar is an ancient fortress located in the south of the old city of Kabul. The estimated date of construction is around the 5th century AD. It sits at the tail end of the Kuh-e-Sherdarwaza Mountain. The Walls of Kabul, which are 20 feet (6.1 m) high and 12 feet (3.7 m) thick, start at the fortress and follow the mountain ridge in a sweeping curve down to the river with a series of gates for access to the fortress. A useful article summing up the different issues about the decay and destruction of the fort can be found at: The Truth about the British and the Bala Hissar and the Second Anglo Afghan War. This includes several 21st Century photographs of the remains of the fort.

The Journal of the Royal Artillery The Seige of Arcot 1751

The Siege of Arcot 1751

A Presentation to the Royal Artilllery Historical Society

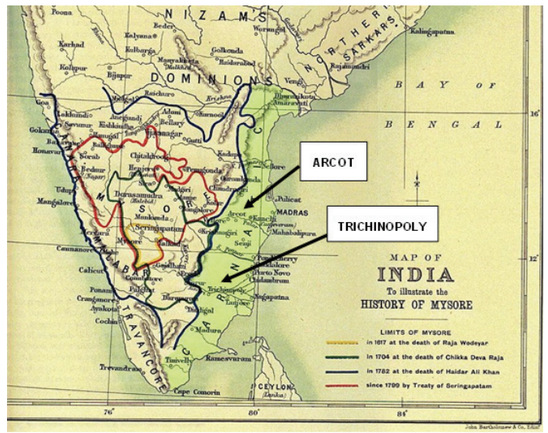
Lieutenant Louis Muston was commissioned into the Gunners in August 2021 and served his first tour with C (Madras) Troop of 6/36 (Arcot 1751) Battery, 4th Regiment RA. During that tour he completed a Nordic Ski season and the All Arms Commando Course. Prior to joining the Army he completed a history degree at King's College London, specializing in 20th century British military history and the Special Operations Executive (SOE). He is now serving in London at the Honourable Artillery Company where he is the Troop Commander of M Troop.

Historical Context

The Mughal Empire covered modern day Afghanistan, India, Pakistan and Bangladesh and lasted from 1526 – 1827. At its peak it encompassed 158,000,000 people and 4,000,000 km. However, the empire's influence by the middle of the 18th century was making way for smaller more independent Princes or Nawabs.

The British and French presence within India contested one another through the backing of rival Nawabs and warring factions. The British and French East India Companies were permitted to trade within India owing to the extremely profitable trade and the infrastructural improvements they brought to the various Nawabs.

Chanda Sahib, after consolidating his control of Arcot, wanted to eliminate the last major British supported rival, Muhammed Ali Khan Wallajah, who was at Trichinopoly. Chanda Sahib led a large force to besiege Trichinopoly which was occupied by a handful of his own men and about 600 British troops. The British commander based at Trichinopoly was widely known for being weak and lacking tactical competency. This led to a wholesale acceptance of southern French control.



Southern India 1670 - 1790 © Wikipedia

Robert Clive[1] proposed a plan to the governor at Madras, Thomas Saunders that rather than challenge the strong Franco-Indian forces at Trichinopoly, he would strike at Arcot, with the goal of forcing Chanda Sahib to lift the siege at Trichinopoly. Saunders agreed, but could only part with 200 of the 350 British soldiers under his command. Those 200 soldiers and a further 300 sepoys along with 3 small guns and eight European officers marched towards Arcot from Madras on 26 August 1751. On the morning of 29 August they reached Conjeeveram, 42 miles (68 km) south west of Madras. Clives' intelligence informed him that the enemy garrison at Arcot was twice the size of his marching forces.

Fig 1. Clive of India
Painted by Charles Clive in 1764

From Conjeeveram to Arcot, a distance of 27 miles (43 km) Clive and his force, in spite of a delay caused by a tremendous storm of thunder and lightning, reached Arcot in two days. The garrison left by Chanda Sahib to defend Arcot, struck with panic at the sudden coming of the foe, at once abandoned the fort, despite their larger numbers. Clive and his forces took over the city and the fort without firing a single shot.

Formation of the Madras Artilllery

The Madras Army was one of three British presidency armies in India. The Madras Army of the Honourable East India Company came into being through the need to protect the Company's commercial interests. The loosely organized military units were later combined into battalions with Indian officers commanding local troops. The first artillery unit raised was in 1748 and was known as A Company Madras Artillery. Later it was renamed 1st Battery, 17th Brigade Madras Artillery.

The need for better trained soldiers beyond the untrained native guards which was their main employment, became apparent after the French capture of Madras in 1746. A wholesale change in the organization of the Madras Army saw an introduction of cavalry, heavy cavalry and, of course, artillery.

There was initial hesitancy about the employment and training of locals in the use of artillery for fear of mutiny. This fear occasionally was justified across the British occupation of India, a result of ill treatment at the hands of ignorant and disinterested British Officers.

The East India Company provided through private purchase most if not all the artillery pieces that the Madras Artillery would come to use. This commonly came in the form of the horse drawn 6 Pounder. However, it wasn't uncommon for the heavier and more deadly 18 Pounder to be used also.

The Rise of the East India Company (EIC)

The East India Company was an English, and later British, joint-stock company founded in 1600 and dissolved in 1874. It was formed to trade in the Indian Ocean region, initially with the East Indies and later with East Asia. The company gained control of large parts of the Indian subcontinent and colonized parts of Southeast Asia and Hong Kong.

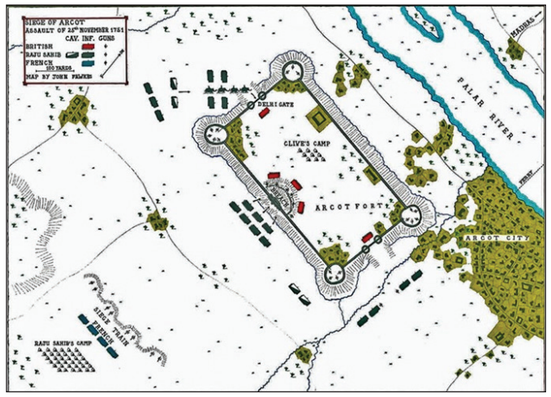
At its peak, the company was the largest corporation in the world and had its own armed forces, totalling about 260,000 soldiers, twice the size of the British army at the time.

Originally chartered as the 'Governor and Company of Merchants of London Trading into the East-Indies', the company rose to account for half of the world's trade during the mid 1700s and early 1800s, particularly in basic commodities including cotton, silk, sugar and opium. The company also initiated the beginnings of the British Empire in India.

The company eventually came to rule large areas of India, exercising military power and assuming administrative functions. Company ruled areas in India gradually expanded after the Battle of Plassey in 1757.

The Siege of Arcot (1751)

Despite the terms of the Peace of Aix la Chapelle in 1748, which ended the Austrian Succession War and handed Madras back to the British, the French governor in Pondicherry, Dupleix,[2] continued with his policy of increasing French power in the area at the expense of the British. Dupleix was adept at the technique which was later used to perfection by the British in India. He became involved in a bewildering network of alliances with local rulers, playing one off against the other.



Map 2. The Siege of Arcot (1751) © BritishBattles.com

1. Robert Clive, 1st Baron Clive, KB, FRS (1725 – 1774), known as Clive of India, was the first British Governor of the Bengal Presidency. Clive has been widely credited for laying the foundation of the British East India Company (EIC) rule in Bengal. He began as a writer (the term used in India for office clerk) for the East India Company (EIC) in 1744 and established Company rule in Bengal by winning the Battle of Plassey in 1757. Clive never received any military training.
2. Joseph Marquis Dupleix (1697 - 1763) was Governor-General of French India and rival of Robert Clive
3. Mir Qamar-ud-din Khan Siddiqi (1671 - 1748) also known as Chin Qilich Qamaruddin Khan, Nizam-ul-Mulk, Asaf Jah and Nizam I, was the first Nizam of Hyderabad.

In 1748, the veteran Nizam-ul-Mulk,[3] Nizam of Hyderabad, died leaving a throne to be filled in Hyderabad and in the dependency of Carnatic, in which both Madras and Pondicherry were situated. The vacancy at Hyderabad was filled by a French protégé. The British nomination for the Carnatic was Mohamed Ali who was at Trichinopoly. The French protégé for the Carnatic, Chanda Sahib, laid siege to the Fortress of Trichinopoly with several thousands of troops supported by about 300 French soldiers.

The British Governor in Madras, Thomas Saunders, saw that if Dupleix succeeded in capturing Trichinopoly, the British might well be expelled from Southern India and their trading interests extinguished. He therefore decided to support Mohammed Ali but did not have at this time sufficient forces to raise the siege.

At this stage, there leaped to fame a hitherto obscure clerk in the East India Company's service, who had recently transferred to the military service. Robert Clive was selected by Saunders to travel to Trichinopoly to report on the situation there. He reported that unless help was given to Mohammed Ali, Trichinopoly would almost certainly fall. As insufficient forces were available, he suggested that a diversionary attack be made on the fortress and town of Arcot which lay some 70 miles north of Trichinopoly. Arcot was not only the capital of the Carnatic but also the seat of the French candidate Chanda Sahib, and an attack there would be bound to provoke a reaction and result in enemy troops being drawn away from Trichinopoly.

Fig 2. 6 Pdr Gun

Saunders agreed with the plan and Clive set off with a force of 200 Europeans and 300 Sepoys. A detachment of the Madras Artillery under the command of Lieutenant Revel accompanied this force with three 6 pounder guns. Clive received warning that the garrison at Arcot consisted of over a thousand men and he therefore wrote to Madras asking for a siege train of 18 pounder guns to be sent to his assistance.

On the approach of Clive's small column, however, the enemy garrison abandoned the fort, Clive found several cannon, quantities of shot and powder left by the enemy. The captured cannon were pressed into service in the defence of the fort. The enemy force, meanwhile, re-entered the adjoining town but made no attempt to recapture the fort.

Fig 3. Clive directing the fire of the guns during the siege © BritishBattle

Clive organized three sallies to try to seek out and destroy the former garrison. During the last of these, in order to save the guns from capture by the French, the Madras Artillerymen used the recoil to manoeuvre the guns back into the safety of the fort. Unfortunately, not available online, there is a striking depiction of this action by the artist Peggy Leach.

The two 18 pounder guns requested by Clive duly arrived and were put to good effect. Also, using a 72 pounder gun found within the fort, the Madras Artillery managed to put a shot through the Palace which was serving as the enemy headquarters. This practice continued once a day for 4 days until the gun blew up. The ultimate destruction of the gun was owing to the size of the charge and cannon ball it discharged. The cannon ball weighing 32kg placed considerable strain on the barrel and structure of the gun itself.

By the 21st September the enemy force of French and native troops diverted from the Siege at Trichinopoly was estimated to be 3000 men and the Siege of Arcot began in earnest. The siege continued until the 14th November, when on hearing of the approach of a relieving force, the enemy commander Rajah Sahib, attempted to arrange surrender terms with Clive. When these were ignored, the enemy began one last final assault on the fort to attempt to dislodge the defenders once and for all. Using armoured elephants and scaling ladders, the enemy made several breaches in the walls and entered the fort on a number of occasions. On each occasion, however, the garrison repulsed the enemy assisted by the firing of grape shot into the breaches by the Madras Artillery. The Artillery Commander, Lt Revel, had been wounded early in the siege and on at least one occasion Clive personally directed the fire of the guns in the defence of the fort.

Within 24 hours, the enemy broke off the assault and withdrew. The relieving force under Captain Killpatrick arrived by the afternoon of the 15th November and found only 240 fit men in the Garrison remaining. These same men had held off besieging forces estimated at 10,000 troops for 54 days.

The action at Arcot achieved its objective of diverting troops from Trichinopoly. Clive pursued the enemy force and defeated them at Arni in December 1751. Early in 1752, Clive raised a force, which included the Madras Artillery, to march to the relief of Trichinopoly which was achieved by April 1752. By the end of May Chunda Sahib had been captured and killed and by the 3rd June the campaign came to an end.

Lord Elton described the successful conclusion of the siege at Arcot as: "the turning point of British fortunes in India". Certainly, after 1752 there was no serious threat to the British in Southern India. The Madras Artillery, within three years of its formation as a regular force, played no small part in the siege and contributed towards the establishment of the British in Madras.

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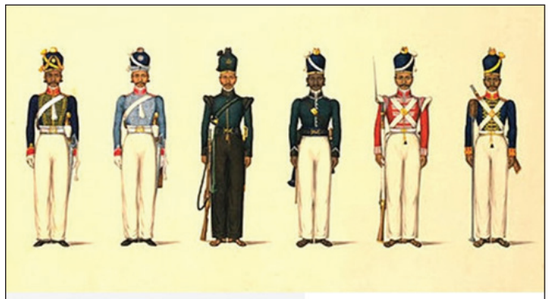
QUESTIONS

Chairman: Thank you. That was excellent. This isn't a potted history of your battery and it may not be your specialist field but you've done some really compelling research. As you say it is a key turning point in British Indian history.

You say that the Madras Artillery had only existed for three years because this will be important for our next talk about Plassey. Can you talk a little bit more about what the Madras Artillery was. You have shown a picture of the Horse and Foort artillery uniforms (Fig 4), but can you offer a little more about its size and its organization and whether it had a relationship with the other Presidencies. How does that work?



Left to right, the Madras Horse Artillery, the Madras Light Cavalry, the Madras Rifle Corps, the Madras Pioneers, the Madras Native Infantry, and the Madras Foot Artillery, c. 1830

Fig 4. Uniforms of the Madras Army

Lecturer: The physical structure of the Madras Artillery was a lot like a modern UK infantry battalion being made up of companies and battalions; unlike batteries and regiments which we would refer to today.[4]

Most of the service personnel would have been local Indian me; obviously there were no women at the time. The rank held by the privates was sepoy. Generally, all the officers were either British or French and they themselves were slightly hit and miss. From my research I discovered that there was a conflict as to whether or not, despite popular belief, they were understanding and sympathetic of local customs, religions and faith. Mutinies did happen from time to time because they regularly dismissed claims that were made on religious grounds, beliefs, practices and customs, which resulted in disagreements.

Three Presidencies existed in India and there were artillery units within the other two. I did not find any

evidence that there was any interrelationship between the Presidencies. It is my understanding that they acted very much independently of one another, almost as if they were separate army divisions in a contemporary setting.

Col Michael Phillips: I really enjoyed your presentation. I served as troop commander in the battery and also assisted Dennis Rollo in obtaining the battery's honour title in 1969. Thank you also for digging out the maps which we never had.
At some stage, during the sallies that were made, they retrieved the guns by using their own recoil to propel them backwards. Could you say something about this please?

Lecturer: On one of the sallies the guns were deployed too far forward of the main body of troops and a counter-attack by the French put the guns at risk of being captured. They successfully beat the French back and then fired the guns without their usual chocks under the wheels so that the recoil caused them to rapidly move back from their forward positions.

Harry Waller: You may or may not come across this in your research, but noting that in today's we often wish away the frictions of logistics and in view of the length of the Arcot siege, did you come across anything on the on the logistic side and how they sustained themselves, or more widely the 260,000 strong force?

Lecturer: Rather conveniently as I mentioned, the shock of action in terms of the speed at which Clive arrived caused the forts to be suddenly abandoned by the enemy with vast quantities of basically every amenity and supply that you can imagine. They inherited, sufficient supplies in abundance for Clive's much smaller force. The ammunition stocks of shell and small arms were sufficient for a force six times the size which meant that they had a massive supply inside the fort and did not need a logistical supply line. They used this supply to support their sallies into the adjacent town. This was in contrast to the besieging forces which had to bring in whatever they could carry from their secure base.

Maj Mark Ross: I presume this is a case of interior versus exterior lines of communication.

Lecturer: Absolutely. I mentioned the historical controversy about the way the officers treated the sepoys. From my research I found that a lot of the East India Company officers were ex-regular British army personnel and so they would have a been well trained in officer skills, command and control, and tactics. The British army's and the British Empire's exploits at that time had a vast array of experience particularly amongst the older retired officers. All that resulted in seamless command and control between the officers.
The sepoys' discipline did vary but, by and large, because again they were trained quite diligently by British NCOs and officers, they were well disciplined. There was a popular belief that natives serving a foreign power would be more unruly than an all British force, but generally that wasn't the case.

Chris Dean: I have been trying to research the name Arcot. I was born a Geordie and used to play golf at Arcot Hall, which is in Northumberland. I was wondering if it was named after the battle or the battle was named after Arcot Hall, which is very close to Blagdon Hall where the Lord Lieutenants of Northumberland lived. It is a nice Georgian looking house which would have been the right period.

Lecturer: It is a nice coincidence as 4th Regiment's recruiting catchment area is the North East. It is also rather fitting that this is a similar area. However, Arcot was a location in India and the siege name is derived from the place name.

Afternote by the Secretary. The link between Arcot, the Battle of Arcot and Arcot Hall is explained in the Endnote below from the Arcot Hall web site.

Chairman:

I was very much taken by what you said about the size of the EIC. There seems to be a reasonable comparison with the international tech companies of today. It is also notable that the Armed Forces of the EIC were twice those of the British forces at the time. India was clearly the place to go if you wanted to see action.

Thank you again for an excellent intervention. I particularly salute your pronunciations of Indian people and places which is quite difficult.

4. Wikipedia gives the following orbat for the Madras Artillery in 1856. The Madras Artillery was disbanded in 1858 in the reorganisation after the Mutiny. Horse artillery, 1 Brigade of 4 European Troops and 2 Native Troops. Foot Artillery: 4 European Battalions each of 4 Companies and 1 Native Battalion of 6 Companies.

The Journal of the Royal Artillery

HISTORY OF ARCOT HALL

This is a brief history of Arcot itself, and where the name comes from. Arcot is a locality and part of Vellore City in the state of Tamil Nadu, India. Which is in the south east of the country. Located on the eastern end of the Vellore City on the southern banks of Palar River. The city straddles a highly strategic trade route between Chennai and Bangalore, between the Mysore Ghat. The name is believed to have derived from the Tamil words, AARU (river) +KAADU (forest). However ARKKATU means 'a forest.

The town's strategic location has led to it being repeatedly contested and prompted the construction of a formidable fortress by Muslim Nawab of Karnataka, who made it his capital, and in 1712 the English captured the town during the conflict between the United Kingdom and France for the control of South India. The people who lived in the Arcot region, especially in and near the temple belonged to a clan called the Arcot's.

The Battle of Arcot took place on November 14th 1751 between forces of the English East India Company, led by Robert Clive, and the forces of the French East India Company. Clive's victory at the Battle of Arcot marked a sea change in the British experience in India. France lost its colonial empire ambitions and it made Clive a very wealthy and illustrious man.

Incidentally 4th Regiment Royal Artillery, which were originally known as the 4th Royal Horse Artillery, are comprised of six batteries. Of which, one of which is called 6/36 Arcot 1751 Battery. The honour title of Arcot was granted in 1969 and commemorates the Siege of Arcot by Clive in 1751.

This brings us to the connection between Arcot Hall, in Cramlington and Arcot in India. Robert Storey was a medical student and emigrated early in life to India where he became the Physician to the Nabob of Arcot, and was also involved in the Battle of Arcot. It was here that he made his fortune, and on his return to England purchased land at Cramlington from Sir John Lawson in 1791.

Robert Storey died on 21st Aug 1822 aged 90, and George Shum, purchased the land from Storey and built Arcot Hall in 1802. George Shum Jr was born in 1775, and he went on to work for the East India Company. In 1795 he married Ann the daughter of Robert Storey and following the marriage Shum changed his name to Shum-Storey.

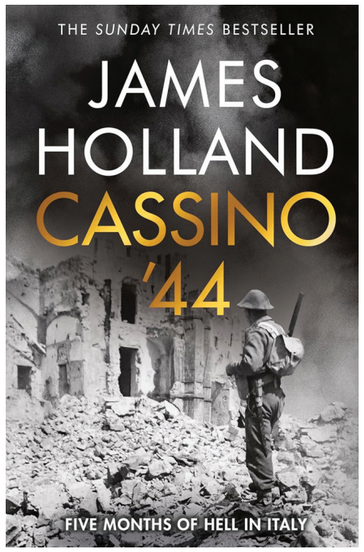
Hartley Main Colliery Company acquired the house in the 1930s. The first shaft for Arcot Colliery was sunk at the start of the Second World War. There were stables for six ponies, and 200 men worked there.

During the Second World War the hall was occupied by the National Electricity Board. The Scottish Highlanders and the Black Watch used some of the land at Arcot as a transit camp, before they went onto front line action.

Benton Park Golf Club was originally established in 1909 in Benton in North Tyneside, and in 1939, the club was informed that its lease would not be renewed as the land was required for house building by Newcastle Corporation who issued a compulsory purchase order. The club rented the land at Arcot Hall from 1939 and changed its name to the Arcot Hall Golf Club. After years of negotiation the golf club finally purchased Arcot Hall and land in 1996 from the Coal Board.

The Journal of the Royal Artillery Book Reviews

Book Reviews



Cassino '44 - 5 Months of Hell in Italy
By James Holland
Published by Penguin Random House
Hardback, pp 612
ISBN 978085750538

James Holland was a co-founder of the Chalke History Festival in 2011, which has become the UK's leading history festival attended by 30,000 history buffs in 2024. He is also the author of numerous best selling histories, most recently 'Brothers in Arms' the story of the Sherwood Rangers war from D Day to VE Day and 'Normandy '44, D Day and the Battle for France.'

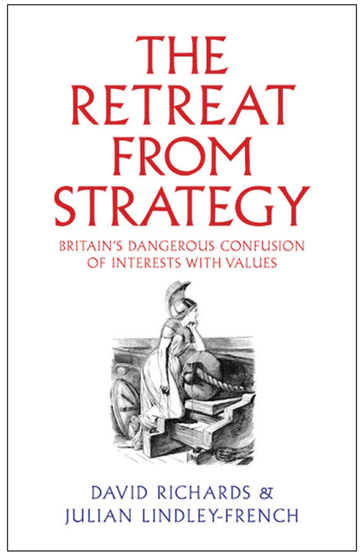
James Holland's The Savage Storm, The Battle for Italy 1943, was reviewed in the Spring 2024 edition of the RA Journal. That book covered the campaign in Italy from the victory in Sicily in August 1943 until the approach to the Gustav Line in December 1943. Cassino '44 is the sequel to The Savage Storm and takes the reader through the battle to break the Gustav Line, the landings at Anzio, Operation SHINGLE, and the fighting on Monte Cassino. All this bitter fighting was undertaken against the increasing pressure on resources and the time of the approaching invasion of Normandy, Operation OVERLORD.

The Allies had hoped to be in Rome by Christmas, but they were thwarted by the Germans' Gustav Line, a barrier of minefields, wire, bunkers and booby traps. It took five months before the Allies could finally fight their way north, by which time, 75,000 troops and civilians had been killed, the historic Monte Cassino Abbey had been destroyed and entire towns and villages laid waste.

Holland tells the story from the point of view of the Allies and the Germans, and from infantrymen, Gunners, aircrew, politicians, civilians and battlefield commanders. He has drawn on diaries, personal letters and contemporary sources to narrate a detailed account, both fascinating and horrifying, of one of the most bitterly fought campaigns of the Second World War. In some ways, it is a frustrating read because the campaign was frustrating as the Allies tried and tried to achieve a breakthrough. Hitler ordered his troops to fight for every yard and the terrain and the weather conspired to aid the defender and thwart the attacker. During Operation DIADEM, which finally broke through the German defences, between 11 May and 4 June, the Germans suffered 51,754 dead, wounded and missing: the Allies, 43,746. The Allies had only one day to bask in their hard won triumph, before Operation OVERLORD was launched on the 6 June. James Holland comments that the German commander, Kesselring's reputation emerges rather better than he deserved. He was tried for war crimes but avoided the death sentence, in part due to lobbying by Field Marshall Alexander.

As with The Savage Storm, there are comprehensive maps at the front of the book, with annotated topographic terrain photographs, a list of the major personalities and their headshots and numerous photographs throughout the text. The appendices include a timeline of events, the order of battle for the Allied and Axis Armies as well as comprehensive notes, selected sources and an excellent index.

By Major Malcolm Dix



The Retreat from Strategy - Britain's Dangerous Confusion of Interests with Values
By David Richards & Julian Lindley-French
Published by C Hurst & Co
Hardback, pp 305
ISBN 9781911723677

The Retreat from Strategy' is a powerful and well-reasoned polemic against the United Kingdom's collective loss over the last 30 years of a unifying Grand Strategy and dependent national and defence strategies, the reasons for this, and what must be done to restore a fundamental tool of the nation state, for which Britain was once world-renowned. It presents a trenchant, erudite and convincing argument from a Gunner former Chief of the Defence Staff and a distinguished Defence academic, that Britain has forgotten what Grand Strategy is, conflates interests with values, and has a self delusional and incoherent Defence Policy based on recognising only as much threat as the Treasury deems affordable. The prose is clear and flowing; to use a cliché, the book is a page-turner and this reviewer read the vast majority of it in a single day. After a lengthy but invaluable introduction, the book opens and closes with two imaginary war scenarios, the first, set in 2031, sees a British military defeat, the result of failed strategic thinking and defence planning, with a serial erosion of ends, ways and means. The second scenario, set in the same year, depicts the success of the British Future Force of the final chapter, at the heart of a reinvigorated NATO, and posits how an affordable and credible defence can be mounted if such power is seen again by London as a value, not a cost. The eight intervening chapters are split into two parts; Part 1 'The Retreat from Strategy' explains where we are now and how things came to this pass, and Part 2 'The Return to Strategy' details the proposed remedy.

The book's basic premise is that the four strands of Grand Strategy (diplomatic, informational, military and economic) provide the overall direction of travel for a nation, based on which a national strategy is formed, and from that a host of subsidiary strategies can be constructed, for welfare, health, education, defence and so on. It is a truism that there are no votes in defence, and so in democracies the fundamental military basis of a state's survival will lose funding priority to other public goods with more immediate ballot appeal, unless there is a clear and publicly recognised national threat. The Russian invasion of Ukraine three years ago has been a stark reminder of the return of realpolitik to a Europe which has been enjoying a 'peace dividend' since the collapse of Communism in Eastern Europe in 1989. In a shorter timeframe and on a national level, since the global financial crisis of 2008, coincidentally the year of the Russian invasion of Georgia, there has been a growing disconnect between the ambitions of 'Global Britain' and its reduced military capability.

As a weaker power, Britain has a greater need of a Grand Strategy, to be able to influence other, more powerful allies, and become a shaper of events rather than a victim of them. The application of a Grand Strategy requires a level of grounded ambition, allied to clearly defined goals, built on a lucid understanding of critical national interests, and linked to the pragmatic application of power through sound organisation and sustained investment over many years. Short-termism kills Grand Strategy; strategic patience is required.

For the last 30 years London has concentrated on counter-insurgency, and ignored deterrence, national defence and warfighting forces. Strategic realism is now urgently required, in which tactics are not confused with strategy, short-term politics are not dressed up as long-term planning e.g. a succession of 'Strategic' Defence Reviews where pretence trumps reality; and a common unifying strategy is followed for decades by quite probably opposing political Britain needs a national strategy for defence which matches: parties. Britain needs a national strategy for defence which matches:

- the political ends vital to secure her political interests,
- the means defence needs to play a part in meeting those ends,
- and the ways to apply the means as efficiently and effectively as possible.

The key question to ask is 'what does Britain want to achieve in the world?' The British defence budget is now too small for the nuclear and conventional force it seeks to generate, so either the budget needs to grow, or the force needs to shrink, further. After three centuries of exceptional power and wealth based on the rationality of the Enlightenment, colonial mercantilism underpinned by the freedom of the seas guaranteed by the Royal Navy, and giving birth to the Industrial Revolution, the United Kingdom has reverted to a historically more normal role as a medium level power. However, along with France and Germany, Britain is one of the three European powers which cannot hide from the responsibilities which power imposes; strategy is about hard and unpopular choices.

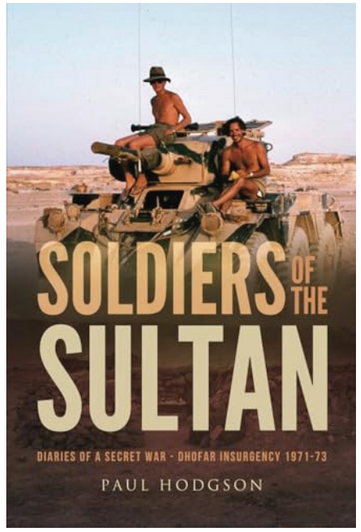
The essential problem is not post Imperial hubris, but that London's political and bureaucratic elite have lost faith in Britain, its people, and themselves. Since 2008 we have seen failures in leadership and imagination, political incompetence, strategic pretence and an increasingly ideological London bureaucracy that wants to see Britain, Europe and the world as they would like them to be, rather than as they are. Repeated crises have shaken an already fragile United Kingdom, ranging from strategic failure in Iraq and Afghanistan, the 2008-2010 financial and banking crash, Brexit and the COVID pandemic. A lack of leadership at the political level has been reinforced by partial and often incompetent policies, poorly implemented by the High Establishment.

There is now a profound confusion between values and interests; in Whitehall British interests are seen as a tainted concept, to be supplanted by an 'ethical' foreign and security policy, even at Britain's own expense. This intolerant 'woke' thinking is a threat to Britain's right to engage in pursuit of its own legitimate security and defence interests. States assess and judge each other's interests as a basis for their policies towards each other; if a powerful state abandons its interests in favour of values, however noble, the already anarchic international system becomes more so. Allies need to understand what constitutes a state's vital interests, so constant virtue signalling, in which the gap widens between what London says it can do and reality, makes Britain an increasingly unreliable partner. London elites are risk and power averse. The recent FCDO talks with a Chinese-influenced Mauritius about handing over (not back) the geo-strategically important Chagos islands reinforce the view of a changing United States, that Britain is yet another burdensome European ally relying on American defence spending.

In sum, this is a majorly important and timely warning of the hollowed-out nature of current British Defence, the gathering storm of geo-strategic threats as the post Second World War international order decays, growing populations and climatic instability driven resource competition, and the urgent need to return a long-term and realistic British Grand Strategy to drive national and then defence strategies. This book is strongly recommended to all those who wish to understand and where possible influence the future of Britain and her defence, rather than simply let the future happen to a strategically illiterate political class who need support and guidance.

By Lieutenant Colonel Peter Thompson

The Journal of the Royal Artillery



Soldiers of the Sultan
Diaries of a Secret War - Dhofar Insurgency 1971-73
By Paul Hodgson
Published by UK Book Publishing
Paperback, pp 679
ISBN 9781917329354

During the Cold War, at the height of the Vietnam War, a struggle of even greater significance was being fought in Oman's Dhofar region adjacent to communist held Yemen. The penalty for losing it would be the communist domination of Southern Arabia up to and including the Musandam peninsular, giving the communists a chokehold on the Straits of Hormuz and on the strategically critical Western oil routes. The current situation with Yemeni Houthis 'interfering' with shipping entering or exiting the southern entrance to the Red Sea (the Bab Al Mandab Strait), reflects what might have been in the Persian Gulf. It was imperative that the spread of communism in Southern Arabia be contained and defeated.

The UK Government therefore embarked on a Secret war in support of the Sultanate of Oman. It involved seconded regular British Army officers and SNCO volunteers, contract officers and SNCOs and the fledgling Omani armed forces. It would be necessarily, a Secret war, a war free of Press speculation and reporting and free of public comment, scrutiny, or pressure groups; even families were unaware of the situation other than postings were in a 'training' capacity. Subsequently the war was won. It is today recognised as one of the most notable victories of the Cold War.

"Only those who have been to Dhofar can fully appreciate the severity of the conditions in which the polyglot force fought and flew; at times extreme heat; at others cold, wet with permanent cloud, and rugged terrain, the equal of which it would be hard to find anywhere… Those who fought there, including those who were wounded or died, did not fight in vain".

Field Marshal Lord Carver,
Chief of the General Staff, 1971 – 1973

Given the opening lines of the Field Marshal's statement, the author, then a Lieutenant of the 13th/18th Royal Hussars on secondment (who rose in his 20 month tour to Acting Major), has produced a truly excellent first-hand account of the Dhofar war and the very active part he played in it. His descriptive writing, based on his daily diaries of the time and illustrated by numerous photographs (sadly printed in black & white), along with some particularly good pencil sketches, transports the reader into those "severe conditions" of climate, terrain and battle. His superb personal account has been further enhanced by his ability to access once SECRET (now declassified) Minutes, telegrams, and decisions between the UK FCO and the UK Commander of Oman's fledgling forces.

This book, although primarily written about the Ferret and Saladin equipped, nascent Armoured Car Squadron of the Sultan's forces is an excellent and highly recommended account of a Troop Commander's war. It is recommended for both young and senior officers and for senior and junior NCOs for the lessons it brings out. Lessons all too easily forgotten at a cost.

During the author's tour he had to conduct the selection and training of drivers and gunners from scratch, instructing in Arabic. Individual armoured car tactics had to be taught then adapted for the enemy and the terrain. The role demanded a thorough knowledge of the Ferret and Saladin by the author as is described during close quarter night battles when comms, fuses or simple sight bulbs might fail at a critical time. The descriptions of the tenacious and aggressive enemy (the Adoo) and their tactics are described, as are the prolonged firefights where the author shot out the rifling of both his .30 Browning machine guns whilst also engaging with upward of 30 x HE and HESH 76mm; in efforts to hold off the Adoo, whilst an Infantry Coy conducted a withdrawal in contact.

He describes the almost seamless mutual support he gave and received from his British SNCOs commanding the other two Saladins in his Troop and the risks of running out of water and ammunition during periods of intensive fighting. The daily threat of mines features heavily, both anti tank and anti personnel planted day or night on tracks, by obvious cover, shade, or wadis or, around waterholes. Mines were the constant scourge of operations in Dhofar and caused a notable loss of life amongst his friends and soldiers. Additionally, the damage to vehicles, given the paucity of spares, could delay routine operations whilst parts were sourced and flown down from the North of the country. The book covers most of the major defensive and offensive operations conducted in the Dhofar War and the Operation names and objectives will be familiar to those who have served in that theatre.

As well as the low level tactics that are 'absorbed' by reading this book, the author recorded his 'diplomatic' successes in managing his soldiers, given that the slightest perceived insult might cause an armed confrontation between tribal factions within his unit. He had soldiers from Northern Oman, Baluchistan, Kadims (ex slaves of the former Sultan) Firqat (often formed of surrendered enemy personnel who had been 'turned') and locally, non combatant Jebalis and the fierce Bedu desert dwellers. All said though, such clashes were relatively rare, and he talks of the strong bond he made with his men and their utter loyalty to him during the fighting.

This is a book centred on the experiences of an Armoured Car Troop Leader and subsequently Squadron Leader. However, he speaks highly of some well known Gunners who were either holding Infantry appointments in the Battalions he was supporting or, were on a Gun Troop position and who kept up indirect fire support whilst under attack themselves.

At a page shy of 680 pages, I can highly recommend 'Soldiers of the Sultan.'

By Major Bob Begbie

Letters to the Editor

Sir,

May I please correct a material error in the Ukraine Air War article, page 23?

The relevant excerpt from the text of the article as sent over in the email was;

"***Costs***

The costs even of a successful campaign can be significant. This was thought to be very successful at the time, especially compared with earlier loss rates in WW2.

1944- No. 83 Group RAF in Normandy, from June to August.

10 Typhoon squadrons (@say 18a/c)

***11,200 sorties**; 114 a/c lost ; loss rate 1%; 93 pilots lost.*

In 1975, Nixon sent the B52s to bomb Hanoi at the end of the Vietnam War. They lost 15 aircraft out of 170-210 in theatre, in about a fortnight."

In the article as printed, this was given as "1,200 sorties" which of course confuses the reader about the loss rate.

The point of the figures is that, although the Allies pretty much controlled the sky over Normandy, and considered around 1% losses per sortie as acceptable, certainly by comparison with earlier in WW2, that still represents around half the aircraft initially deployed, and close to half the pilots.

I should say that I don't know for sure how many aircraft a Typhoon squadron of those days could put up, but I recall they were nominally 3 Flights of six aircraft? I have a contemporary photo of a cousin of my late father's who was a Typhoon pilot in Normandy with 164 Squadron, and there are 22 pilots in the photo. Even if there were a few more aircraft , the comparison still holds.

The comparison with Air losses in Ukraine and the position of the Western air forces of today hardly needs making!

Yours sincerely, **Mike Blair**

Editor: Mea culpa.

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Sir,

Just a quick word to congratulate you on a fine issue of the Journal, just received. I shall be reading it for some time!

No need to ack this- keep up the good work.

Yours ever, Colin Robins

Editor: Ack.

Letters and Submissions

The correspondence page of any professional journal is extremely important allowing, as it does, readers to air their views, comment on articles and correct any mistakes. The Editor therefore invites letters and emails from readers. A guide on the submission of letters and articles is given below.

Letters to the Editor

The Editor welcomes correspondence from readers on articles or book reviews and other matters arising from discussions in The Journal of the Royal Artillery.

Please mark all letters for the attention of the Editor, and send either by email to: RARHQ-RAJ@artycen.ra.mod.uk or by post to: The Journal of the Royal Artillery, RHQ RA, Royal Artillery Barracks, Larkhill, Salisbury SP4 8QT.

Letters should be no more than 700 words.

Publication in the Journal is at the discretion of the Editor. Offensive or anonymous letters will not be considered.

Submissions

The Editor invites the submission of unpublished manuscripts on all topics related to national and international defence and to the organisation, application and future development of artillery in all its forms, and military history with an artillery slant. Published articles will become the copyright of the RAI.

Guidelines for submissions are:

- Articles should be the author's original work. Where the work of other authors is quoted this must be clearly stipulated either within the text or as an endnote.
- Articles should be relevant to the Journal's defence and artillery focus.
- Submissions should be between 2,000 and 6,000 words and should be fully referenced by endnotes. Responsibility for factual accuracy lies with the author.
- Pictures, tables or artwork should be supplied separately in high-resolution (minimum 300dpi) and not embedded in the text. Authors must ensure they have permission to use any supplied imagery. If asked, the Editor may be able to help with copyright issues.
- Submissions should be sent electronically by email as Microsoft Word files. Please include a brief biography and contact details and send to: RARHQ-RAJ@artycen.ra.mod.uk
- If accepted for publication articles will be edited to meet the Journal's house style. The Editor reserves the right to make alterations for space and clarity.
- Anonymous articles will be accepted under a pen name, but the author must disclose his or her identity, in confidence, to the Editor.
- Authors are not paid. However, they will receive complimentary copies of the issue in which they are published.

Book Reviews

The Editor welcomes the submission of unpublished reviews of important or useful new books on all aspects of defence and artillery. Reviews should be submitted in line with the guidelines for articles above and should be between 700 to 1,000 words. Wherever possible a high resolution picture of the book's cover should be submitted, as should details of the publisher and where it can be purchased. If you would like to suggest yourself as a reviewer for a newly published book please contact the Editor. Book reviewers are not paid, but where appropriate will be allowed to keep the copy of any book they are sent.

Royal Artillery Historical Society 2025 Programme

Date and Timings	Event	Subject	Lecturer/Lead
Wednesday 2 April **1030-1600 hrs**	Spring Lectures and AGM RA Barracks Larkhill	Wellington and Expeditionary Warfare in the Iberian Peninsula 1807-1814	Col Nick Lipscombe
Wednesday 21 May **1930 hrs**	Webinar	The Walcheren Expedition 1809	Dr Martin Howard (Bookings close on Friday 16 May)
Wednesday 18 June **Day Visit**	Summer Visit Royal Logistic Corps Museum, Worthy Down, near Winchester	D-Day Logistics Lecture RLC Museum Tour	Lt Col Chris Barrington Brown Museum Guide (Bookings close on Wednesday 4 June)
Friday 24 October 2025 **1030-1600 hrs**	Shrapnel Day Lectures RA Barracks Larkhill	The Lessons of the Crimean War Wolseley and the Ashanti Expedition Napier and the Abyssinia Expedition Kitchener and the Sudan Campaign	Dr Stephen Manning Dr Christopher Brice Dr Keith Surridge Dr Spencer Jones RA Regimental Historian
Wednesday 19 November 2025 **1930 hrs**	Winter Webinar	Dieppe 1942: The German Perspective	Col Michael Phillips

Please book places with the RA Historical Society Secretary:
Lt Col R S (Dick) Clayton, 10 Harnwood Road, Salisbury, Wiltshire SP2 8DD

E Mail: richard.clayton312@gmail.com