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An Assessment of Covenanter Military Capability c1638-1651

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Submitted in fulfilment of the requirements for the degree of Doctor of Philosophy (PhD)

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Abstract

This thesis will demonstrate that the reputation of the Covenanter military machine as a highly efficient, qualitatively superior organisation is generally undeserved. It re-examines the importance of veterans returning from European service in the generation of the initial Covenanter military capability by noting that they were too few and arrived too late to have had the impact described in much of the historiography. A re-evaluation of the mobilisation and training systems highlights localised, improvised, and inefficient practices which were no better than the systems of its allies and enemies. The systems were based on well-established Scottish and English methodologies, which showed more continuity than change, although there were also clearly discernible influences from the European 'military revolution'. The Covenanters' record until 1644 is one of political successes based not on military victories, but on their enemies' weakness or incompetence. From 1645, the tale became one of military defeats punctuated by infrequent victories, and between 1648 and 1651 those defeats became so calamitous that in the final act, the kingdom itself was lost. Covenanter armies, far from being qualitatively superior to their contemporaries, were every bit as flawed and fallible and became increasingly fragile as time passed.

There were two key elements in the methodology used in this thesis. The first was to seek evidence of how a thing was done not simply that it was done: not, for example, recording that shires raised levy quotas, but analysing how they did so. The second was to use timelines to analyse individual activities and to compare multiple activities. Thus, for example, a comparison of timelines demonstrates that military activity in Scotland in 1638/39 began well before the recall of veterans from Europe. The sources used include written records from national to individual levels, where possible tracking single events across all those levels. In particular, regardless of the type of source, identifying the difference between theories or proposed policies and their practical implementation was paramount.

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Glossary

Body armour: generic term for breast plates, back plates, corselets, jacks etc.

Burgh Quartermaster (or Quarter Captain): a man appointed to take charge of a subdivision of a burgh to organise the inhabitants for a specific purpose, including night watches, plague control measures, training etc.

Caracole: a cavalry tactic of successive ranks advancing, firing and withdrawing.

Corslet: a set of infantry armour originally consisting of a helmet, neck guard, breast and back plates, and thigh guards. It could also mean only the helmet, breast and back plates.

Case: artillery shot consisting of scrap metal or musket balls loaded loose or in containers.

Deficients: men who, when selected for a levy, absconded before their unit mustered.

Dragoon: infantry equipped normally or with snaphances (an early flintlock musket) and mounted on cheaper horses.

Forlorn Hope: units of cavalry or infantry deployed in advance of the main body of troops both in attack and defence used to disrupt the enemy before an engagement.

Gentleman volunteer: men of heritor status who equipped themselves and served without pay (until 1644) but receiving free food and lodgings.

Harquebusier: most common category of cavalryman armed with sword and either pistols or a carbine and wearing a helmet and either a leather coat or body armour.

Heritor: a landed proprietor, a man with a hereditary right to his land.

Jack: a leather jerkin sometimes reinforced with metal strips or padding.

Lancers: a light cavalryman usually armed with a sword and lance.

Malignant: an adjective describing people, activities or anything (e.g. beliefs, broadsheets, songs) which the Covenanters considered to be 'anti-Covenanter' in nature.

Mattross: junior artillerymen who assisted with traversing, loading, sponging out etc.

Officer: a term encompassing all ranks down to corporal: sergeants and corporals were usually referred to as inferior officers. In modern terminology, they are often referred to as 'commissioned' (ensign and above) and 'non-commissioned' (sergeant and below).

Point Blank Range: the distance to the point where a cannon ball first strikes the ground when fired from a barrel which was horizontal.

Pot: when mentioned in relation to body armour, a helmet.

Proofed armour: armour manufactured and tested to withstand musket or pistol shot.

Reformado: an officer who has lost his post owing to merging or disbandment of units.

Scottish Gaeldom: The Gaelic-speaking world or Gaelic culture in Scotland.

Shock action: the effect achieved when cavalry or pikemen charged into the enemy with the intent of defeating him in close combat.

Swedish/Swine/Swan Feathers: an infantry half pike spiked at both ends to allow it to be planted in the ground as a rudimentary defence against cavalry.

Tables: the Covenanters' initial governing body formed in November 1637. This consisted of four Tables which was one each for the nobility, gentry, burghs and Kirk.

Underofficers: company appointments such as Scriver (clerk) Furrier (assistant quartermaster) and Captain of Arms (gunsmith).

Wappenschaw: muster of the fencible population of an area to audit men and weapons.

Abbreviations

ASL&C: Army of the Solemn League and Covenant.

CJ: House of Commons' Journal.

CSPD: Calendar of state Papers Domestic.

CSPS: Calendar of State Papers Relating to Scotland.

CSPV: Calendar of State Papers and Manuscripts Relating to English Affairs Existing in the Archives and Collections of Venice.

DNB: Oxford Dictionary of National Biography.

JMH: Journal of Military History.

JP: Justice of the Peace.

JSAHR: Journal of the Society for Army Historical Research.

JSHS: Journal of Scottish Historical Studies.

LJ: House of Lords' Journal.

NMA: New Model Army.

RAI: Royal Artillery Institution.

RPCS: Register of the Privy Council of Scotland.

RPS: Records of the Parliament of Scotland.

SHR: Scottish Historical Review.

SSNE: Scotland, Scandinavia and Northern European Biographical Database.

Conventions

The dates given in the text assume that the calendar year began on 1 January.

The default currency is the Scots pound (£ Scots), shilling (s) and penny (d). When Sterling is used, it will be specified as such. £1 Scots was worth one twelfth of £1 Sterling: 1s Scots was worth 1d Sterling.

Author's Declaration

I declare that, except where explicit reference is made to the contribution of others, this thesis is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

Signature:

Printed name: SJ Canning

Introduction

Aim

This thesis examines the formidable reputation of the Covenanter armies between 1639 and 1644 and the loss of it by 1651 as presented in the historiography, by examining how those armies were forged and how they performed in war. The aim is to determine whether that reputation was justified and in so doing to both correct parts of the scholarship and to address its gaps. If the zenith of reputation, influence and capability was reached with the storming of Newcastle in October 1644, then what followed represented a catastrophic collapse. If, however, that reputation cannot be justified and the defeat at Kilsyth in July 1645 is more representative of Covenanter military capability at the mid-point of the decade, then the decline to the nadir of the occupation of Scotland was far from so precipitous.

Structure

Covenanter military capability between 1638 and 1651 will be considered through analysis of the following topics: veterans, recruiting and mobilisation, training, and the primary arms of infantry, cavalry and artillery. This thesis will not consider maritime operations, military engineering, logistics or finance as specific topics with dedicated chapters. While acknowledging their importance as factors affecting military capability, space precludes their separate consideration, but where specific issues arise under chapter topics, they will be examined.

Chapter 1 will examine the role played by the veterans recalled from Europe in generating and sustaining military capability. There will be a particular focus on their importance during the Bishops' Wars when their impact may be determined by considering their numbers and the dates of their return. Further analysis will consider those veterans who had already returned to live in Scotland and who were therefore domestic military actors well before anyone was recalled from abroad. A third group which will be considered are the men who became veterans over the course of the decade, specifically looking at general officers, scrutinising the role of such veterans between 1638 and 1651.

Chapter 2 will analyse the recruiting and mobilisation system employed by the Covenanters. For this thesis, recruitment was when a commission was given to an individual or institution to raise a unit by enlisting individuals without geographic constraints and mobilisation was the mass enlistment of men by local authorities across a defined area. A specific consideration will be whether the Covenanters adopted the Swedish mobilisation system or whether they used more traditional Scottish methodologies. Key aspects of this are whether the numbers levied were the numbers demanded and how quickly, and on what

scale, desertion began. This will allow an estimate to be made of the effectiveness of Covenanter armies and how typical they were of the period.

Chapter 3 will determine what training regime the Covenanters put in place, how effective it was and whether it demonstrated continuity or change. It can be argued that there was national direction and local implementation, but the difference between policy and practice cannot be ignored. It is important to establish whether or not local solutions were more likely than slavish adherence to a single model. The role of veterans will be examined as they had a well-established training function in Scotland, predating the Covenanter period and evident in the fact that training activity began before the recall of men from Europe. Training and mobilisation timelines will be compared as the logical requirements would have been for a contingent to join the army having achieved a certain level of proficiency. This would only have been possible if all mobilisation activity was efficiently integrated.

Chapter 4 will analyse the organisation and equipment of the Covenanters' infantry capability which will provide a more accurate description than is currently available in the scholarship. This will identify points of difference or of commonality with other armies' capabilities, thus highlighting any strengths or weaknesses in the Covenanters' capability. This will also provide examples of continuity or change with the source of any influences identified where possible. Finally, the infantry's effectiveness will be considered, based on its performance in battle, allowing an assessment of whether this increased or decreased over time.

Chapter 5 will analyse the Covenanters' cavalry capability and will broadly adopt the structure and approach of Chapter 4. In addition it will consider whether the Covenanters were weaker in cavalry when compared to other contemporary armies. This will assess the ratio of cavalry to infantry, the quality of Scottish horses, and whether the social status of cavalymen influenced their performance.

Chapter 6 will analyse the Covenanters' artillery capability. The Covenanters' two generals of artillery will be compared to assess their influence on the general effectiveness of the artillery arm. Additionally, both men designed and manufactured bespoke weaponry which will be examined to determine what, if any, advantages they bestowed upon the Covenanters. The chapter will also consider the contemporary technical and scientific limitations of artillery. This will provide context for the battlefield performance of the artillery as part of an assessment of its overall effectiveness.

Themes

In addition to an analysis of each chapter's topic, four themes will be developed across the thesis which will ensure a greater understanding beyond those purely military issues.

Firstly, the degree to which the resources of the kingdom could be harnessed in pursuit of victory was determined by the relationships between the state, the army, the Kirk and the people: division and conflict directly undermined military capability. This adapts one of Clausewitz's triads by adding the Kirk (see below for further detail). This relationship may be measured by assessing the degree to which the Scottish people were consenting, compliant or had to be coerced in order to serve. A consenting individual was a volunteer, a compliant individual one who did not volunteer but served when selected and a coerced individual a conscript likely to desert at the earliest opportunity. The numerical balance between these three groups in society would directly affect the ease or difficulty in mobilising an army and its subsequent effectiveness when deployed.

Secondly, an assessment will be made of the degree to which the systems underpinning the Covenanter armies were founded on continuity or change. This will include identifying the most likely influences driving change including, inter alia, the relative prominence of any Swedish influence. This theme will allow the identification of any characteristics which were unique to the Covenanter military, or which gave them a qualitative advantage.

Thirdly, the Covenanters in 1639 adopted many modern military practices which derived from the European wars. An analysis of the vectors along which such information travelled will provide a better understanding of Scottish military culture. Scotland was not isolated from the latest news and developments on the continent during the forty plus years over which this military innovation had occurred.

Fourthly, the degree to which the generation of military capability depended on local motivation and solutions will be considered. The more that this was necessary, the less would have been the influence of the central authority and indeed that authority would have been undermined if it lacked the means to compel local authorities to do its will. The more localised the solutions, the weaker the evidence for a Covenanter military system at all.

The thesis will conclude by taking the findings of each chapter and considering them in the context of the wars across the timeline. This will allow an assessment of the effectiveness of Covenanter military capability to be made, demonstrating that the trajectory of its reputational success did not match the trajectory of its purely military achievements. Additionally, the foundations on which that capability was built will be shown to have been insufficient to maintain it, let alone to have supported the scale of forces that would have been required to deliver on the hubristic war aims of the Covenanter leadership.

Literature Review

Overview

It is beyond the scope of this thesis to review all the scholarship concerning every British war between 1639 and 1651. What follows, therefore, is an overview which provides context, including Table 0.1 which illustrates the basic timeline of the Covenanters' wars. This overview is followed by a detailed consideration of the historiography concerning the chapter topics and associated debates. The historiography describes a steep upwards trajectory for Covenanter military capability to the apogee of its achievement and reputation when the Covenanters were the dominant military and political party in the three kingdoms in late 1644. The scholarship thereafter describes a rapid descent to serial defeats, broken by rare victories, until the kingdom itself was lost. That initial reputation, according to the scholarship, was founded on an unbroken, if imperfect, sequence of military successes as described below.

Timeline of Covenanter Wars													
	1639	1640	1641	1642	1643	1644	1645	1646	1647	1648	1649	1650	1651
First Bishops' War													
Second Bishops' War													
Ireland													
First English Civil War													
Montrose/MacColla													
Engagement													
Anglo/Scots War													
NOTE. Additional small scale actions were fought in Scotland throughout the period.													
Table 0.1													

Scholars describe a remarkable mobilisation in 1639 of a formidable and subsequently victorious army from a society long unused to such large scale martial activity. Early writers such as Robert Chambers and Robert Vaughan wrote enthusiastically of a Covenanter army consisting of 'hardy and

valiant volunteers' who were 'animated by a religious zeal, which promised to render them invincible'.¹ Some 50 years later, this had been replaced by Samuel Gardiner's more sober assessment that the Covenanters' forces were a 'professional army [facing] loose ranks of untrained peasants'.² This theme of a clear disparity in quality during the Bishops' Wars was continued at the turn of the twentieth century in the works of John Burton and Thomas Baldock, although still without supporting evidence.³ At this time James Hewison offered a more accurate and objective interpretation that both Covenanter and Royalist armies were equally shambolic, but this idea was not taken up elsewhere.⁴ More modern scholarship continued to emphasise the difference in quality in 1639/40, but some arguments were becoming increasingly nuanced. Allan Macinnes noted the 'military supremacy the Covenanting army consistently enjoyed in the field', but he also noted weaknesses in its capability with 'acute financial problems', 'logistical difficulties' and 'desertions [that] were continuous'.⁵ Edward Furgol argued that in 1639 the 'Covenanters quickly mastered the elements of the Military Revolution and created a successful war machine'. He judged the army to be superior to that of the king, but tempered this by noting that the majority of the army consisted of only 'adequate soldiers' who 'were really unprepared for a [major battle such as] Lutzen or Rocroi'.⁶ Alexia Grojean and Steve Murdoch considered that the efficient mobilisation of the army and the quality of its commanders meant that facing it was 'a daunting prospect' for the Royalists, but this is not the strongest endorsement of its superiority.⁷

Historians who have gone further and unequivocally questioned the robustness of Covenanter military capability have been few. The first was David Stevenson who shrewdly surmised that rather than having been militarily dominant in 1639, the Covenanter efforts 'had been largely a bluff [and that] propaganda [had] concealed serious weaknesses'. This analysis has subsequently been supported by Mark Fissel, James Wheeler and Stuart Reid who directly or indirectly referenced Stevenson.⁸ The dominant theme in the historiography of the First Bishops' War, however, remains the superiority of 'Scotsmen covenanted with God and commanded by European veterans' compared to their Royalist counterparts,

¹ Robert Chambers, *History of the Rebellions in Scotland*, (Edinburgh 1828), i, p. 130. Robert Vaughan, *Memorials of the Stuart Dynasty*, (London 1831), p. 25.

² S. R. Gardiner, *The Fall of the Monarchy of Charles I*, (London 1882), i, pp. 194-195.

³ John Hill Burton, *History of Scotland*, (Edinburgh 1898), vi, p. 219. Thomas Baldock, *Cromwell as a Soldier*, (London 1899), pp. 2-3.

⁴ James Hewison, *The Covenanters*, (Glasgow 1908), i, pp. 326-329.

⁵ Allan Macinnes, *Charles I and the Making of the Covenanting Movement*, (Edinburgh, 1991), pp. 191-192, p. 205. Allan Macinnes, *The British Revolution*, (Basingstoke, 2005), p. 124.

⁶ Furgol in Kenyon and Ohlmeyer (Eds), *The Civil Wars: a Military History of England, Scotland, and Ireland 1638-1660*, (Oxford 1998), p. 41. Furgol in Murdoch and Mackillop, *Fighting for Identity*, (Leiden 2002), p. 38. Edward Furgol, *A Regimental History of the Covenanting Armies 1639-1651*, (Edinburgh 1990), p. 2.

⁷ Alexia Grosjean, Steve Murdoch, *Alexander Leslie and the Scottish Generals of the Thirty Years War*, (London 2014), p. 98.

⁸ David Stevenson, *The Scottish Revolution*, (Newton Abbot 1973), pp. 145-146. Mark Fissel, *The Bishops' Wars*, (Cambridge 1994), pp. 28-38, p. 290. James Wheeler, *The Irish and British Wars*, (London 2002), p. 23. Stuart Reid, *Crown, Covenant and Cromwell*, (Barnsley 2012), p. 62.

albeit that assessments of their actual effectiveness are far more nuanced than Vaughan's belief that they would be 'invincible'.⁹

Scholars continued to argue that there was a qualitative mismatch between the armies when considering the conquest of northeast England in 1640. Chambers believed the Covenanters 'were almost assured of victory' and Burton explained the army's superiority in 1640 by it having been 'easy to reassemble the army so recently dispersed in Scotland'.¹⁰ Hugh Hazlett wrote that the army had 'proved itself superior to any English forces it had met' during the Second Bishops' War, neatly avoiding the fact that they had met precious few.¹¹ C.V. Wedgwood also believed that the Covenanter army was 'incomparably better' than the king's, which would explain why Peter Young and Richard Holmes noted that the Covenanters routed the king's 'rabble at Newburn [...] with little difficulty'.¹² Furgol too described the qualitative difference saying that 'Leslie and his men performed brilliantly' while 'Charles I and his advisors functioned at a nearly fictional level of incompetence' which, for Murdoch, explained the Covenanters' 'stunning 1640 campaign'.¹³ For Macinnes 'the supremacy of the Covenanting army' was demonstrated when it routed 'the numerically inferior, poorly led and chronically underfunded Royalist forces [...] at Newburn',¹⁴ a judgement echoed by Colin Helling.¹⁵

Stevenson, however, argued that the Covenanters' advantage was neither so great nor so certain and that they needed 'a military decision before their army deteriorated' and Ian Roy also dismissed the idea that 'Scots military superiority [could] be taken for granted'.¹⁶ Furgol, although noting the Covenanters' superiority, also sounded a cautionary note. He argued that 'lacking vast resources of provisions and money [an] offensive strategy was essential not only politically, but also to maintain the army's unity'.¹⁷ Kevin Sharpe wrote in similar vein that in front of Newcastle the Covenanter army was within 24 hours of disintegration from lack of supplies.¹⁸ Roger Manning went further, concluding that the king's forces were not so inferior: had they been better organised and led, they 'could have turned back or defeated the Scots Covenanting Army [...] on the banks of the River Tyne'.¹⁹ Arguments made in

⁹ John Scally, *The Polar Star: James, First Duke of Hamilton*, (London 2024), p. 166.

¹⁰ Chambers, *Rebellions in Scotland*, i, p. 209.

¹¹ Hugh Hazlett in HA Cronne, *Essays in British and Irish History*, (London 1949), p. 109.

¹² C. V. Wedgwood, *The King's Peace*, (London 1955), p. 337. Peter Young, Richard Holmes, *The English Civil War*, (Ware, 2000), p. 23.

¹³ Furgol in *Fighting for Identity*, p. 43. Steve Murdoch, *Network North*, (Leiden 2006), p. 40.

¹⁴ Macinnes, *Charles I and the Making of the Covenanting Movement*, p. 197. Allan Macinnes, *The British Revolution*, (Basingstoke, 2005), p. 125.

¹⁵ Colin Helling, *The Navy and Anglo Scottish Union*, (Woodbridge 2022), p. 67.

¹⁶ Stevenson, *Revolution*, p. 207. Ian Roy, *The British Army, 1500-1715; recent writing reviewed*, JSAHR, Winter 1984, p. 197.

¹⁷ Furgol in *Fighting for Identity*, pp. 42-43.

¹⁸ Kevin Sharpe, *The Personal Rule of Charles I*, (New Haven 1992), pp. 894-895.

¹⁹ Roger Manning, *An Apprenticeship in Arms*, (Oxford 2006), pp. 150-151.

the scholarship should be expected to develop and become more sophisticated over time, but such dissenting opinions confirm the need to look more closely at Covenanter effectiveness.

Scholars then note the deployment of yet another army to Ireland which quickly stabilised the situation in Ulster, even if imperfectly. There is a consensus in the historiography that although Covenanter forces did not have the expected impact, they halted the Irish Confederate invasion of the north.²⁰ Stevenson concurred that the 'Irish confederates had been prevented from conquering Ulster', but also noted that 'the modern conclusions [are] that after clearing Antrim and Down the New Scots were 'to all intents and purposes useless'.²¹ Ian Gentles and Raymond Gillespie echoed this by describing a general decline in the army's strength culminating in defeat at the Battle of Benburb (1646).²² After that, Jane Ohlmeyer wrote, the Covenanters in Ulster 'no longer represented a threat'.²³ By late 1648 'the Scottish army in Ireland ceased to exist'.²⁴

The intervention of the ASL&C in 1644 irrevocably changed the balance of forces in the north of England. Wedgwood described the Scots' offer of an alliance with the English Parliament as 'an answer to prayer' for the latter.²⁵ This was because, as Robert Bucholz put it, the Covenanters' army was 'the most battle-hardened in the British Isles', despite it having fought no battles.²⁶ There is a broad consensus in the scholarship that contemporary opinion believed the Covenanters' forces to be so formidable that, as Furgol put it, 'many expected Leven's army to reduce rapidly the English Royalist presence in northern England'.²⁷ There is also general agreement with David Scott's assessment that it was a 'vital [...] intervention', with Martyn Bennett's statement 'that simply by its presence it changed the balance of power' and with Macinnes' clarification that this was 'in favour of the Parliamentary forces'.²⁸ Yet victories at Marston Moor and Newcastle were to mark their reputational high water mark, after which, as Terry put it, 'their army accomplished little' and they were soon 'begging for help against Montrose'.²⁹ They had 'failed to make the decisive military breakthrough that they and their English allies had anticipated', or as Stewart put it in plainer English, they had 'failed to deliver the expected knock-out

²⁰ Inter alia. Spiers, Crang, and Strickland, *A Military History of Scotland*, (Edinburgh 2012), p. 282. Hazlett in *Essays in British and Irish History*, p. 109. Charles Hamilton, *Scotland, Ireland and the English Civil War*, Albion, Summer, 1975, p. 129.

²¹ David Stevenson, *Scottish Covenanters and Irish Confederates*, (Ulster Historical Foundation, 2005), p. 296, p. 313.

²² Ian Gentles, *The English Revolution and the Wars in the Three Kingdoms*, (London, New York 2014), p. 101. Raymond Gillespie in Norman MacDougall, *Scotland and War*, (Edinburgh 1991), pp. 113-129.

²³ John Kenyon, Jane Ohlmeyer, *Civil Wars: a Military History of England, Scotland, and Ireland 1638-1660*, (Oxford 1998), p. 90.

²⁴ Stevenson, *Scottish Covenanters and Irish Confederates*, p. 263.

²⁵ C. V. Wedgwood, *The Covenanters in the First Civil War*, SHR, Apr 1960, p. 6.

²⁶ Robert Bucholz, *Early Modern England 1485-1714*, (Chichester 2013), p. 324.

²⁷ Furgol in Kenyon, Ohlmeyer, *Civil Wars*, p. 50.

²⁸ Martyn Bennett in Spiers, Crang, Strickland, *Military History of Scotland*, pp. 285-286. David Scott, *Politics and War in the Three Stuart Kingdoms*, (Basingstoke 2004), p. 84. Macinnes, *British Confederate*, p. 231.

²⁹ CS Terry, *A History of Scotland*, (Cambridge 1920), pp. 369-370.

blow in 1644'.³⁰ Stevenson noted, somewhat ominously, that from 1645 the English Parliament was 'increasingly confident of its ability to defeat the king without Scots help'. Scott encapsulated their decline by noting that 'what should have been the Scots' trump card in English politics, their army, had become their biggest liability'.³¹

Yet how far this was the result of direct military action by the Covenanters and how much the result of other factors? Given that there were no large scale battles during the Bishops' Wars, it is difficult to attribute the Covenanters' success to military prowess alone. The Covenanters did not fight in a major battle until Marston Moor (1644). They emerged on the winning side at Marston, but did they demonstrate any qualitative superiority when compared to friend or foe or did they simply display comparable strengths and weaknesses? By mid-1645 the Covenanters had been at war or had conducted other military activities for most of the previous seven years. They had veteran troops in England and Ireland to draw upon and the fencible population in Scotland was ostensibly training every week. Why then, was the Covenanter military system so unable, for so long, to challenge and defeat Montrose and MacColla? What would a more systematic, detailed and accurate analysis of its strengths and weaknesses reveal? Equally importantly, what would account for the undoubted decline in the Covenanters' military fortunes which the scholarship clearly describes as beginning in 1645 and accelerating thereafter?

The historiography describes the factionalism and internal strife caused by the Engagement which resulted in the mobilisation of an uninspiring army in 1648. Gardiner was scathing about the army's fractious commanders; Charles Sanford Terry described it as 'contemptible in numbers and efficiency, lacking artillery, raw, undisciplined, the cavalry scarce able to keep their saddles at a trot'; for Furgol it was 'without supplies, plans and effective leadership'; Stanley Carpenter's assessment was that Cromwell's forces 'easily outclassed the ill-prepared, badly equipped, poorly trained and, most critically, worse led Scottish levies'; and Peter Ackroyd observed that 'it was sustained by no great cause'.³² Its tardy deployment meant that it invaded England too late to exploit Royalist uprisings which had already been suppressed and it was subsequently overwhelmed at Preston in August.³³ Total defeat in the Engagement confirmed the continuing the downward trajectory of Covenanter military capability.

³⁰ Scott, *Politics and War*, p. 84. Laura Stewart, *Urban Politics and British Civil Wars*, (Leiden 2006), p. 327.

³¹ C. V. Wedgwood, *The Great Rebellion, The King's War 1641-1647*, (London 1958), p. 493. Lawrence Kaplan, *Charles I's Flight to the Scots*, Albion, Autumn 1979, pp. 208-209. David Stevenson, *Revolution and Counter-Revolution 1644-51*, (London 1977), pp. 54-55. Scott, *Politics and War*, p. 82.

³² S. R. Gardiner, *History of the Great Civil War*, (London 1901), iv, p. 165. Terry, *History of Scotland*, p. 390. Edward Furgol, *The Religious Aspects of the Scottish Covenanting Armies 1639-1651*, PhD Thesis, University of Oxford, 1982, p. 42. Stevenson, *Revolution and Counter-Revolution*, p. 111. Stanley Carpenter, *Military Leadership in the British Civil Wars*, (London 2005), pp. 129-130. Peter Ackroyd, *History of England, Civil War*, (London, 2014), iii, p. 184.

³³ Inter alia. Spiers, Crang, and Strickland, *Military History of Scotland*, p. 290. Scott, *Politics and War*, p. 175. Stephen Bull, Mike Seed, *Bloody Preston The Battle of Preston 1648*, (Lancaster 1998), pp. 53-56. Holmes Richard, *Preston 1648*, (Market Drayton 1985), p. 14.

The army raised in 1650 was also weakened by internal strife which again denied it veteran manpower. This was a problem exacerbated by the policy of repeatedly purging the army, which Terry described as ‘an orgy of witch-hunting’.³⁴ There is broad agreement in the scholarship that the Covenanters, as K. C. Corsar put it, ‘with the knowledge of [their] inferiority in fighting material [...] planned a wholly defensive campaign’ when Cromwell invaded Scotland in 1650.³⁵ When attrition and logistic difficulties forced him to withdraw, the Covenanter army pursued and attempted to trap and defeat him at Dunbar. In this endeavour they failed utterly and were comprehensively defeated, with perhaps half of the army captured. Terry called Dunbar ‘a disaster which revived the shameful memories of Flodden and Solway Moss’, but alarmingly for the Covenanters this was not yet their military nadir.³⁶

Yet more men were mustered to form a new army, based as John Grainger wrote, on the ‘escapees from the battle’ of Dunbar, which took post at Stirling to block any further northward advance by Cromwell.³⁷ Peter Gaunt noted that when campaigning began in 1651, ‘the stalemate [was] broken, when Cromwell shipped most of his troops across the Firth of Forth’ and invaded Fife, brushing aside the hastily assembled forces which sought to stop him.³⁸ The main Covenanter army invaded England hoping that Royalists would rise in great numbers, but as Stevenson noted ‘very few English joined the king’.³⁹ At Worcester, on the anniversary of Dunbar, the last Covenanter field army was decisively defeated, in Furgol’s words ‘after a bitter day of fighting’, which marked, de facto, the demise of Covenanter military capability in this period.⁴⁰ Does this describe a precipitous decline of a highly effective military capability or the erosion of an average one? There is no doubt that Covenanter armies were badly weakened by religious and political divisions, but were the foundations on which those armies were built solid enough that without those divisions the Covenanters could have prevailed? The scale of the defeats at Preston (1648), Dunbar (1650) and Worcester (1651) suggest otherwise and this thesis will demonstrate that those foundations were lacking.

Stevenson, *Scottish Covenanters and Irish Confederates*, pp. 261-262. Arran Johnston, *Essential Agony: The Battle of Dunbar 1650*, (Warwick 2019), p. 63, p. 97.

³⁴ Inter Alia. Terry, *History of Scotland*, p. 400. Stevenson, *Revolution and Counter-Revolution*, p. 151. Scott, *Politics and War*, p. 199. Matthew Rowley, *Godly Violence in the Puritan Atlantic World*, (Woodbridge 2024), pp. 177-178.

³⁵ Inter alia. KC Corsar, *David Leslie's Defence of Edinburgh July - August 1650*, JSAHR, Autumn, 1947, pp. 96-105. Terry, *History of Scotland*, p. 400. Furgol, *Regimental History*, p. 12. Laura Stewart, *Rethinking the Scottish Revolution*, (Oxford 2016), p. 310.

³⁶ Inter alia. Terry, *History of Scotland*, p. 402. C. H. Firth, *The Battle of Dunbar*, Trans of the RHS, xiv, 1900, p. 26. Johnston, *Essential Agony*, Ch 6- 7. Peter Reese, *Cromwell's Masterstroke Dunbar 1650*, (Barnsley 2006), Ch 6-8. Rowley, *Godly Violence*, Ch 7.

³⁷ John Grainger, *Cromwell against the Scots*, (Barnsley 1997), pp. 88-89.

³⁸ Scott, *Politics and War*, p. 200. William Douglas, *Cromwell's Scotch Campaigns 1650-51*, (London 1898), Ch 6-7. Peter Gaunt, *The British Wars 1637 -1651*, (London 2001), p. 85.

³⁹ Stevenson, *Revolution and Counter-Revolution*, p. 207. Mark Kishlansky, *A Monarchy Transformed*, (London 1996), p. 200.

⁴⁰ Malcolm Atkin, *Cromwell's Crowning Mercy The Battle of Worcester 1651*, (Stroud 1998), Ch 6-7. Furgol in Kenyon, Ohlmeyer, *Civil Wars*, pp. 69-70. Reid, *Crown, Covenant and Cromwell*, Ch 11. Trevor Royle, *Civil War The Wars of the Three Kingdoms 1638-1660*, (London 2004), Ch 11.

While the Covenanter historiography does not directly consider the theme of consenting, compliant and coerced men, there is other relevant scholarship. Clausewitz identified the relationship between the state, the army and the people as the factor which determined both the nature of a war and the intensity at which could be waged.⁴¹ If this triad is highly motivated and fully committed to a war then the full potential of a nation could be brought to bear in the pursuit of victory. If it is divided, however, that potential dissipates and defeat becomes the more likely outcome. For Covenanting Scotland, the Kirk must be added to the triad, making it a tetrad. Analysis of the incentive and coercive measures implemented by the authorities at all levels will demonstrate the changing nature of the relationship between these four actors. This directly affected levels of consent, compliance and coercion in society which in turn determined the ease with which armies could be raised and how effective they were in battle.

Formal analysis of the typical motivational characteristics of groups within an army and their effect on military capability was not carried out until the twentieth century. Lord Moran, in examining evidence from World War One, reasoned that in any army there are men whose stock of courage is high, men whose stock is failing and men who should not even be in the army: only some of these men fight willingly.⁴² S. L. A. Marshall picked up this theme after World War Two and one of his conclusions was that '75 per cent [of] men may face danger, but they will not fight'.⁴³ Although his evidence for this specific figure has subsequently been found wanting, as Holmes, Max Hastings and Anthony Beevor have pointed out, there are other contemporary studies or references concerning British, German and Russian forces which support his underlying contention.⁴⁴ Beevor also highlighted a study by a British officer named Wigram, who had concluded in 1943 that in any given platoon, there would be 'six gutful men who will go anywhere and do anything, 12 'sheep' who will follow a short distance behind if they are well led, [and] 4-6 who will run away' and offered clear evidence of almost identical German and similar Russian conclusions.⁴⁵ This thesis will examine the degree to which the Covenanter military capability was affected by the balance of consenting, compliant and coerced men in an army.

Veterans

The historiography describes the recall to Scotland, in late 1638 and early 1639, of veteran officers from the European wars as a key enabler of Covenanter military capability. John Spalding, James Gordon, and

⁴¹ Hew Strachan, *Carl von Clausewitz's On War: A Biography*, (London 2008) inter alia: pp. 177-178, p. 190. Michael Howard, Peter Paret, *Carl von Clausewitz On War*, (Princeton 1976), inter alia: p. 76, pp. 88-89, p. 95.

⁴² John Moran, *The Anatomy of Courage*, (London 2007), inter alia Preface, p. 67, pp. 161-162.

⁴³ S. L. A. Marshall, *Men Against Fire*, (Washington 1947), inter alia p. 34.

⁴⁴ Richard Holmes, *Acts of War*, (New York 1986), p. 58, p. 327. Max Hastings, *Inferno The World at War 1939-1945*, (New York 2012), p. 436. Anthony Beevor, *D Day The Battle for Normandy*, (London 2019), p.1.

⁴⁵ Denis Forman, *To Reason Why*, (London 1991), pp. 199-204.

Gilbert Burnet wrote of it in the seventeenth century and via Gardiner, Burton, Hewison, and Terry it continued into the twentieth century.⁴⁶ Terry, however, pragmatically noted that officers without soldiers did not constitute an army and that raising such an army was where the experience of veteran officers proved most important. This importance has remained central to the historiography to the present day. With relatively minor variations the scholarship of, amongst others, Wedgwood, Stevenson, Furgol, Alexia Grosjean, Gentles, Laura Stewart, Murdoch and Macinnes clearly demonstrates this.⁴⁷ The narrative is that the veterans brought home their knowledge and experience of the military domain and made it available to a kingdom made unfamiliar with such things by decades of peace. They provided the core of the army including its leadership, introduced a mobilisation system, and provided specialist skillsets such as training techniques and the use of artillery. A number of questions must be asked of this interpretation. How could mobilisation activity, including training, have begun some six months before the historiography's suggested return dates for the veterans if they were responsible for initiating such activity? Who provided the necessary leadership and specialist skills? Does this indicate that there was not a complete dearth of military knowledge in Scotland? Was this mobilisation activity based on traditional Scottish methods or were European practices adopted?

The number of men who returned from Europe from late 1638 tends to be described as large, in terms such as 'thousands' by Burnet, Gentles and Leanda de Lisle, 'many thousands' by Murdoch, a 'huge number' by Charles Singleton and 'gryte numberis' by Spalding.⁴⁸ Murdoch and Grosjean noted that 'so many veterans flocked home' that they only had the space to write about 'the activities of those who had previously held the rank of major general or above before the outbreak of hostilities'.⁴⁹ They have also argued, as did Pete Edwards, that Monro returned to Scotland with at least his own regiment in February 1639 and Mark Adams has also argued that two complete regiments arrived in Scotland at that time.⁵⁰ The number of recalled veterans was, however, only described as 'sufficient' by Furgol and Stevenson.⁵¹ Another way in which large numbers have been implied is by quoting the direction sent out by the Covenanter leadership in December 1638 or January 1639 requiring a certain number of officers

⁴⁶ John Spalding, *Memorials of the Troubles in Scotland*, (Aberdeen 1850), i, p. 130. James Gordon, *History of Scots Affairs*, (Aberdeen 1841), i, p. 37. Gilbert Burnet, *Memoires of the Lives and Actions of James and William, Dukes of Hamilton*, (Oxford 1852), p. 148. Gardiner, *Fall of the Monarchy*, i, p. 194. Burton, *History of Scotland*, vi, p. 219. Hewison, *Covenanters*, i, pp. 317-318. CS Terry, *The Life and Campaigns of Alexander Leslie*, (London 1899), pp. 43-44.

⁴⁷ Wedgwood, *King's Peace*, p. 257, p. 337. Stevenson, *Revolution*, pp. 130-131. Furgol, *Regimental History*, p. 2. Alexia Grosjean, *Unofficial Alliance*, (Leiden 2003), p. 188. Gentles, *English Revolution*, pp. 13-14. Laura Stewart, *Military Power and the Scottish Burghs*, *Journal of Early Modern History* 15, 2015, p. 71. Murdoch in Serena Jones, *Britain Turned Germany*, (Warwick 2019), p. 29. Allan Macinnes, *Radicalism Reasserted - Covenanting in the Seventeenth Century*, *SHR* 99, 2020, p. 484.

⁴⁸ Burnet, *Dukes of Hamilton*, p. 148. Gentles, *English Revolution*, pp. 13-14. Leanda de Lisle, *Henrietta Maria*, (London 2022), p. 165. Murdoch in *Britain Turned Germany*, p. 29. Charles Singleton, *Famous by My Sword, the Army of Montrose and the Military Revolution*, (Solihull 2015), pp. 14-15. Spalding, *Troubles*, i, p. 130.

⁴⁹ Grosjean, Murdoch, *Scottish Generals*, p. 93.

⁵⁰ Steve Murdoch, *Terror of the Seas*, (Leiden 2010), pp. 194-195. Grosjean, Murdoch, *Scottish Generals*, pp. 89-90. Murdoch and Grosjean in Steve Murdoch, Jaakko Björklund, *The Business of War in the Early Modern Baltic Sea Region, 1530-1765*, (Helsinki 2026), p. 35. Grosjean, *Unofficial Alliance*, p. 172. Edwards in *Fighting for Identity*, p. 258. Adams Mark, *England, the English and the Thirty Years' War (1618-1648)*, University of St Andrews PhD Thesis, 2012, p. 159.

⁵¹ Furgol, *Regimental History*, p. 2. Stevenson *Revolution*, p. 130.

per regiment to be European veterans.⁵² Gentles calculated that this would have required 32 veteran officers per regiment and he is echoed by Furgol, Fissel, Grosjean, Macinnes and Reid with minor variations.⁵³ The key question, unanswered in the historiography, is whether or not this aspiration for a certain number of veterans per regiment was actually achieved, for the aspiration in itself it is not evidence for the return of such large numbers. Some scholars do question high numbers, but do not challenge the overall narrative of the recalled veterans' impact in Scotland. Using Swedish records, Grosjean calculated that the 'total departure [from Sweden] for the 1637-40 period was 302 officers'. She noted that not all left to join the Covenanters, and indeed that their reasons for departing included 'a combination of death, injury, age, disgruntlement or political necessity'. The purpose of this analysis, however, was to assess the impact on the Swedish army, not to consider the implication of this figure on the number of veterans available to the Covenanters in 1639.⁵⁴ James Fallon concluded that 'the [Swedish and Danish] muster rolls provide little positive proof of the return of large numbers of Scots' and Julian Goodare considered it unlikely that many returned, certainly of the rank and file.⁵⁵ Frank Tallet went further and wrote that Leslie's attempts to recall veterans in 1639 were 'fruitless, though more did return subsequently', although his evidence seems to be based simply on there being better records for the ASL&C than for the First Bishops' War.⁵⁶ There is, therefore, a requirement to determine at least an order of magnitude for the number of returning veterans and equally importantly the timeframe over which they returned.

The historiography identifies training and mobilisation as the key areas where the recalled veterans' contribution was so important in generating military capability. The consensus is that the Covenanters adopted the Swedish mobilisation system, but little evidence is offered.⁵⁷ Did the Covenanters adopt the Swedish system, did they continue to use traditional Scottish methodologies or was there a hybrid system? The scholarship makes clear that it was recalled veterans who trained the rest of the army, although the results of that work are variously described. Burton said it was as good as 'a standing army', Furgol that the training produced only 'adequate soldiers' and Grosjean that it was 'the most formidable army in the three Stuart kingdoms', with most falling between these extremes. All points

⁵² NRS PA7/2, GD16/52/19. CSPD 1638-1639, pp. 408-409.

⁵³ Gentles, *English Revolution*, pp. 13-14. Furgol, *Regimental History*, p. 2. Fissel, *Bishops' Wars*, pp. 81-82. Grosjean, *Unofficial Alliance*, pp. 172-173. Macinnes, *British Confederate*, p. 164-165. Reid, *Crown, Covenant and Cromwell*, p. 28.

⁵⁴ Macinnes, Pederson and Riis, *Ships, Guns, and Bibles in the North Sea and Baltic States*, (East Linton 2000), pp. 124-125. Grosjean, Murdoch, *Scottish Generals*, p. 90.

⁵⁵ James Fallon, *Scottish Mercenaries in the Service of Denmark and Sweden 1626-1632*, PhD Thesis, UofG, 1972, p. 25. Julian Goodare, *State and Society in Early modern Scotland*, (Oxford 1999), p. 167.

⁵⁶ Frank Tallet, *War and Society in Early Modern Europe 1495-1715*, (London and New York 1992), p. 276.

⁵⁷ Murdoch, *Terror of the Seas*, pp. 191-192. Murdoch in *Britain Turned Germany*, p. 29. Singleton, *Famous by My Sword*, pp. 14-15. Stewart, *Military Power*, p. 71. Hopper in Michael Braddick, *Oxford Handbook of the English Revolution*, (Oxford 2015), p. 265. Sir John Fortescue, *History of the British Army*, i, (Kindle Edition 2013), loc 3132. Bennet in *Fighting for Identity*, p. 278. CS Terry, *Papers Relating to the ASL&C*, (Edinburgh 1917), i, p. x. Gardiner, *Fall of the Monarchy*, i, p.194. Burton, *History of Scotland*, vi, p. 219. Furgol, *Regimental History*, p. 2. Furgol in *Fighting for Identity*, p. 278. Furgol in Kenyon and Ohlmeyer, *Civil Wars*, p. 42. Bennett in Spiers, Crang, and Strickland, *Military History*, p. 278. Gentles, *English Revolution*, p. 101. Grosjean, *Unofficial Alliance*, p. 173, p. 188, p. 256.

on the spectrum cannot be true, but the biggest issue, as this thesis demonstrates, is that there is evidence of widespread training activity from as early as May 1638, well before any veterans were recalled. Does this mean that there were experienced soldiers providing a reservoir of military knowledge in Scottish society before that recall? Barbara Donagan and Fissel have argued that the boundary between military Europe and England was extremely porous and therefore the degree to which this was also true of Scotland must be assessed.⁵⁸

The final issue with the accepted understanding of the subject of the returning veterans is the timeline. The historiography, in the main, argues for the return to Scotland in time for the First Bishop's War of sufficient numbers to form the core of the army. Furgol specified that the 'recall of these men occurred in late 1638', Stevenson that the recall was initiated in a meeting 'at the beginning of January 1639' and the consensus is that the veterans returned in the first months of 1639. If the timeline of returners shows, as it does, that many veterans returned after the First Bishops' War, were there still enough have had a transformational effect in 1639?⁵⁹

Recruiting and Mobilising

Furgol was the first, in 1990, to make the argument that 'the Swedish [levying] system was adopted by the Scots' and this became a staple of the historiography. Bennet, Gentles, Grosjean, Ralph Houlbrooke, Macinnes, Murdoch, Singleton and Austin Woolrych, directly or indirectly cite Furgol when making their arguments. The similarities presented as evidence of the adoption of the Swedish system include central nomination of colonels, allocation of levy quotas to shires, local selection of recruits, professional artillerymen and forming 'Swedish style units'. It cannot, however, be argued that any of these factors were uniquely Swedish as they were also in use elsewhere in Europe, including England and Wales. This thesis shows that much of the Covenanter mobilising and recruiting system followed well established Scottish practice, but the impact of any modernising influences from Europe must be analysed more carefully.⁶⁰ The effectiveness of the Covenanters' model is demonstrated in the historiography by

⁵⁸ Buchanan and Aikman, *History of Scotland*, (Glasgow 1827), iii, p. 501. Burton, *History of Scotland*, vi, p. 217. Gordon, *Britane's Distemper*, p. 15. Terry, *Alexander Leslie*, p. 42. Kenyon and Ohlmeyer, *Civil Wars*, p. 6. Grosjean, *Unofficial Alliance*, p. 166. Scott, *Politics and War*, p. 21. Gentles, *English Revolution*, p. 44.

⁵⁹ Burnet, *Dukes of Hamilton*, p. 148. Spalding, *Memorials of the Troubles*, i, p. 130. Gordon, *Distemper*, pp. 12-13, p. 139. T. H. A. Fischer, *The Scots in Sweden*, (Edinburgh 1902), p. 114. Stevenson, *Revolution*, p. 127, p. 130. Furgol, *Regimental History*, p. 2. Furgol in *Civil Wars*, p. 42. Grosjean, *Unofficial Alliance*, p. 172. WS Brockington, in Steve Murdoch, *Scotland and the Thirty Years War*, (Leiden 2001), p. 224. Edwards in *Fighting for Identity*, p. 258. Grosjean, Murdoch, *Scottish Generals*, p. 96. Grosjean, *Unofficial Alliance*, pp. 172-173. Gentles, *English Revolution*, p. 44.

⁶⁰ Furgol in John Morrill, *The Scottish National Covenant in its British Context*, (Edinburgh 1990), pp. 138-145. Furgol in Kenyon and Ohlmeyer, *Civil Wars*, p. 44. Macinnes in T. M. Devine, J. R. Young, *Eighteenth Century Scotland New Perspectives*, (East Lothian 1999), p. 73. Austin Woolrych, *Britain in Revolution*, (Oxford 2002), p. 119. Singleton, *Famous by My Sword*, pp. 14-15. Grosjean, *Unofficial Alliance*, p. 188. Ralph Houlbrooke, *Britain and Europe 1500-1780*, (London 2011), p. 214. Bennett in Spiers, Crang, and Strickland, *Military History*, p. 278. Gentles, *English Revolution*, p. 101. Grosjean, Murdoch, *Scottish Generals*, p. 98.

highlighting the sheer numbers repeatedly raised over the period 1639-1651.⁶¹ It is impossible to refute the simple facts of numbers, but there is a need for a more nuanced analysis to arrive at a better understanding. To what extent did levy quotas represent achievable targets? How effective was the mobilisation apparatus in the shires in practice? Carpenter noted that the ASL&C ‘eventually withered’ because of desertion and Furgol identified it as a factor during mobilisation. Although the problems of desertion and evasion are acknowledged, there is no real analysis of the effect these had on the strengths of regiments.⁶² Equally important is to determine whether there was an effective system for providing replacements to regiments suffering routine wartime attrition, another area which lacks analysis. If the sheer numbers raised demonstrate the efficiency of the system, how is that view affected if the numbers were not, in fact, raised and subsequently not maintained in the field?

Shire committees of war are presented as a key innovation. Furgol described their central role, noting that they ‘were extremely competent’, and Scott generally echoed his judgement.⁶³ Andrew Stevenson, Reid, Scott, Peter Reese, Grosjean, Murdoch, and Stewart simply noted their existence, adding general comments on their function, not their efficiency.⁶⁴ The committees also provided an essential link between the government in Edinburgh and the shires without which the armies could not have been raised. The historiography is correct to identify the importance of the committees and their membership, but there is a need to determine quite how efficient they really were and whether they represented continuity or change.

Any consideration of Covenanter mobilisation has concentrated on the process of raising centrally allocated levy quotas in the shires and in particular, there has been little consideration of why so many units were raised outside that system.⁶⁵ There is also very little in the historiography concerning the recruiting and mobilisation of artillery trains. Although Terry and Furgol identify the general of artillery as the man responsible for doing so, they give no indication of the methodology used. Furgol, as part of the comparison with Swedish mobilisation stated that the artillery was ‘manned by regular officers and gunners, not civilian contractors’.⁶⁶ This implies the existence of a trained and experienced core of

⁶¹ Furgol, *Regimental History*, p. 5. Michael Lynch, *Oxford Companion to Scottish History*, (Oxford 2001), p. 24. Carpenter, *Military Leadership*, p. 83. Gentles, *English Revolution*, p. 101. Devine, Young, *Eighteenth Century Scotland*, p. 73.

⁶² Hazlett in *Essays in British and Irish History*, p. 111. Carpenter, *Military Leadership*, p. 83. Furgol, *Regimental History*, p. 55, p. 61. Rosie Serdiville, John Sadler, *The Great Siege of Newcastle 1644*, (Gloucestershire 2011), pp. 139-140.

⁶³ Furgol in *Scottish National Covenant*, p. 139. Scott, *Politics and War*, p. 20.

⁶⁴ Andrew Stevenson, *The History of the Church and State of Scotland*, (Edinburgh 1840), p. 362. Stuart Reid, *Scots Armies of the English Civil Wars*, (Oxford 1999), p. 10. Reid, *Crown, Covenant and Cromwell*, p. 30. Scott, *Politics and War*, p. 20. Reese, *Cromwell's Masterstroke*, p. 78. Grosjean, Murdoch, *Scottish Generals*, p. 98. Stewart, *Rethinking the Scottish Revolution*, p. 181.

⁶⁵ Furgol, *Regimental History*, p. 5. Furgol in Kenyon and Ohlmeyer, *Civil Wars*, p. 42. Lynch, *Scottish History*, p. 24. Gentles, *English Revolution*, p. 101. Devine, Young, *Eighteenth Century Scotland*, p. 73. Goodare, *State and Society*, p. 171.

⁶⁶ Terry, *Papers Relating to the ASL&C*, i, p. lxxxviii. Furgol, *Regimental History*, p. 9, p. 10, p. 42, p. 112, p. 298. Furgol in *Scottish National Covenant*, p. 144.

artillerymen to assist the general with mobilisation, but this is not considered any further. The historiography does not identify where gunners were to be found and how they could be trained in the numbers required. Neither is the scale of an artillery train, in terms of the numbers of horses, wagons, and specialist artisans, considered in detail. Analysis of artillery is a particularly underdeveloped part of the scholarship.

Training

When considering training, the main focus of the scholarship concerning the Bishops' Wars is the importance of recalled veterans to its successful delivery. Terry, Furgol, Grosjean, Scott, Macinnes, Reid and Gentles all, with minor variations, argue for a lack of military knowledge in Scotland, and that recalled veterans provided the training expertise. George Buchanan and James Aikman's opinion of the effectiveness of this training in 1639 was positive: 'the men, daily exercised, in the use of arms, acquired a confidence in themselves, which the few days' training of hasty levies can seldom impart'.⁶⁷ Carpenter, however, argued that in 1639 Leslie 'opted not to attack due to the troops' lack of training and seasoning'. Similarly, Furgol's assessment was that 'initially, however, the Covenanting forces were really unprepared for a [major battle such as] Lutzen or Rocroi'.⁶⁸ There is little analysis of training in 1640 with Buchanan and Aikman, Alexander Peterkin and Furgol noting the fact of three weeks training and preparation at Duns Law in 1640 but offering no analysis of its effectiveness.⁶⁹ The clear gap for the Bishops' Wars is a determination of how much training was actually conducted and how effective it was.

Scholarly analysis of the training and preparation of the army despatched to Ireland and the ASL&C is wholly lacking, but there is consideration of the forces defeated by Montrose and MacColla in 1644/45. Buchanan and Aikman described the training of the levies which were hastily raised and deployed against Montrose and MacColla in 1644 as so limited that 'it totally unfitted them for acting in a collected body'. Hewison wrote of 'the untrained battalions of Elcho' at Tippermuir (1644); Stevenson described regiments of 'Lowland peasants and burghers, untrained and poorly led'; and Furgol judged that these levies lacked 'military training [and] generally responded to combat [...] by flight'.⁷⁰ Scott considered the Engagers' infantry to be 'largely untrained' and Ackroyd dismissed the Engager army as 'ill-trained'.⁷¹ Similarly, Reid and Corsar argued that the Covenanters initially avoided battle in 1650 to

⁶⁷ Buchanan, Aikman, *History of Scotland*, iii, p. 518.

⁶⁸ Carpenter, *Military Leadership*, p. 53. Furgol, *Regimental History*, p. 2.

⁶⁹ Buchanan, Aikman, *History of Scotland*, iii, p. 557. Alexander Peterkin, *Records of the Kirk of Scotland*, (Edinburgh 1838), pp. 288-289. Furgol in *Fighting for Identity*, p. 43.

⁷⁰ Buchanan, Aikman, *History of Scotland*, iv, p. 180, p. 212. Hewison, *Covenanters*, i, p.409. David Stevenson, *Alasdair MacColla and the Highland Problem in the Seventeenth Century*, (Edinburgh 1980), pp. 126-127, p. 132. Furgol in Kenyon and Ohlmeyer, *Civil Wars*, p. 44.

⁷¹ Scott, *Politics and War*, p. 177. Ackroyd, *History of England*, iii, p. 302.

gain time to train their levies.⁷² While time may have been gained, Young and Holmes would not have considered it well spent as they identified ‘inadequate training’ as a major factor in explaining the defeat at Dunbar.⁷³ While the scholarship may stress the importance of the recalled veterans in delivering training in 1639/40, the assessment of their longer term effectiveness is not positive. Allowing for gaps over the decade, the assessment is of consistently poor and declining levels of training, which requires an explanation given that the number of experienced officers must have steadily increased for much of the decade. Did the Covenanters design and implement a modern and effective training regime or were local solutions implemented across the shires which were at the mercy of the willingness of individuals to participate and learn?

There is much in the historiography which emphasises the importance of training as a factor in an army’s effectiveness and considerable analysis of training in the abstract. David Lawrence rightly made the general connection between drill manuals and training; Keith Roberts identified the need for progressive training from individual to army level; Charles Carlton and Gentles saw training as a means to build teams; and Murdoch emphasised the role of standardised training in enabling faster and more efficient mobilisation. Jeremy Black noted that without high levels of training and discipline, executing the new tactics of the military revolution was impossible, which Carpenter agreed with, advocating ‘maximum discipline and constant training’. Donagan and Geoffrey Parker highlighted the human factor in the need for high quality instructors and the key role played by junior officers in training. While this contributes much to the modern understanding of the theoretical training models and, indeed, also demonstrates extensive contemporary understanding, it does not answer the questions of how men were trained or to what standard.⁷⁴ The historiography does not examine in any detail where, when and how training was delivered. In particular there is no comparison with any mobilisation timelines which would inform an assessment of how well prepared men were. Were officers and men selected early enough to have been able to train effectively as companies and regiments before marching to the army rendezvous? Once with the army, did training continue, was it effective and at what point was the army combat ready?

⁷² Stuart Reid, *Dunbar 1650*, (Oxford 2004), p. 27. Corsar, *Leslie's Defence of Edinburgh*, pp. 104-105.

⁷³ Young, Holmes, *English Civil War*, p. 307.

⁷⁴ David Lawrence, *The Complete Soldier*, (Leiden 2009), p. 2. Charles Carlton, *Going to the Wars*, (London, New York 1992), p. 66, pp. 74-75. Murdoch, *Scotland and the Thirty Years' War*, p. 129. Jeremy Black, *A Military Revolution? Military Change and European Society 1550-1800*, (Basingstoke 1991), pp. 3-4. Carpenter, *Military Leadership*, p. 53. Barbara Donagan, *War in England 1642-1649*, (Oxford 2008), p. 286. Geoffrey Parker, *The Military Revolution, 1560-1660 a Myth?* *Journal of Modern History*, Vol 48 No 2, June 1976 p. 202. Keith Roberts, *Cromwell's War Machine*, (Barnsley 2006), pp. 88-103. Ian Gentles, *New Model Army Agent of Revolution*, (Newhaven and London 2022), p. 46.

Infantry

Furgol stated that Covenanter infantry 'relied principally upon its musket fire to decide the issue', and Carpenter agreed in that he wrote that the matchlock musket 'dominated the battlefield' at this time. Roberts, however, correctly stated that in most circumstances musketeers were unable to stand against cavalry without the protection of pikemen, which undermines the firepower arguments. Trevor Dupuy provided a better explanation by stating that infantry tactics of the period used firepower to weaken an enemy unit followed by 'offensive action by the pike [to] deliver the decisive blow'. Young and Holmes provided further clarity when they wrote that the 'infantry of the Civil Wars [...] combined fire and shock [...] following lead with steel, and [avoiding] the ineffectual long-range volleying so frequent on the continent'.⁷⁵ To execute these tactics, infantry of the period were organised into regiments and companies. Furgol, Young, Holmes, Reid and Singleton described a typical foot regiment, regardless of the army, as some 1000-1200 men organised into ten companies each containing men equipped with a mixture of pikes and muskets. All, however, acknowledge that there were many variations, both in the number of companies and in the number of men.⁷⁶

Infantry were equipped as either musketeers or pikemen, but only the latter wore body armour and a helmet, although as John Barratt, C. H. Firth, Fissel, and Holmes noted, such armour was increasingly discarded over time. The usual ratio was two musketeers to each pikeman, caveated by Dupuy, Fissel, Gentles, Young and Holmes who noted that the proportion of musketeers increased over time. Carpenter, however, argued that it was the proportion of pikemen which increased and Furgol made the same case for the Covenanters in 1650, also noting 3:2 ratios in 1640-42.⁷⁷ Edward Cowan, however, described the infantry which invaded England in 1640 as being 'armed with muskets, swords and short staves' making no mention of pikes, and he was echoed by Carpenter who wrote that Covenanter infantry used 'a crude variant' of the pike. Roberts explicitly states that Scottish pikemen, 'were not issued with armour', although unfortunately he provides no evidence.⁷⁸ The historiography is mostly coherent in identifying the two types of infantry and their basic equipment, but as indicated above, there are a number of gaps, inconsistencies and inaccuracies which must be addressed. The key requirement is to analyse how the Covenanter infantry was organised and equipped and why there were the significant differences between individual regiments.

⁷⁵ Trevor Dupuy, *Evolution of Weapons and Warfare*, (New York 1990), p. 137. Furgol in *National Covenant*, p. 143. Carpenter, *Military Leadership*, p. 47. Roberts, *Cromwell's War Machine*, p. 117. Young, Holmes, *English Civil War*, p. 334.

⁷⁶ Furgol in *National Covenant*, pp. 143-144. Young, Holmes, *English Civil War*, p. 46. Reid, *Crown, Covenant and Cromwell*, p. 28. Singleton, *Famous by My Sword*, p. 9.

⁷⁷ John Barratt, *Cavaliers The Royalist Army at War*, (Stroud 2004), p. 44. C. H. Firth, *Cromwell's Army*, (London 1902), p. 72. Mark Fissel, *Tradition and Invention in the Early Stuart Art of War*, JSAHR, Autumn 1987, p. 139. Holmes, *Preston 1648*, p. 12. Dupuy, *Evolution*, p. 142. Gentles, *New Model Army*, p. 27. Young, Holmes, *English Civil War*, p. 46. Carpenter, *Military Leadership*, p. 47. Furgol in *National Covenant*, pp. 142-143.

⁷⁸ Edward Cowan, *Montrose for Covenant and King*, (London 1977), p. 103. Carpenter, *Military Leadership*, p. 47. Roberts, *Cromwell's War Machine*, 2006, p. 98.

Cavalry

Young and Holmes wrote that ‘shock action was the true task of the cavalryman’. They also emphasised the importance of discipline both during and after a charge to avoid the men dispersing to loot or pursue their broken opponents before the battle was won.⁷⁹ Barratt and Singleton broadly agreed that it was ‘the cavalry that dealt the telling blow’ on the battlefield and Carpenter also noted the need for discipline and control.⁸⁰ To achieve this cavalry was organised into troops and regiments which for most scholars is a sufficient level of detail to meet their needs, meaning that further analysis is limited. Furgol noted that until the ASL&C was raised in late 1643, Covenanter cavalry was organised as troops, not regiments, and that in the Bishops’ Wars those troops were usually brigaded with infantry.⁸¹ To this Reid and Singleton added that some regiments of the ASL&C incorporated a troop of dragoons. Reid also concluded that regiments were organised as two squadrons one equipped with firearms and the other with lances, although that later all troopers were equipped with lances.⁸² No one directly addresses the variety of regimental structures or considers why there was such variety in the first place. Also unaddressed is the question of whether mixed regiments of harquebusiers, lancers and dragoons offered a tactical advantage. If so, why it was not universally adopted? Also worthy of consideration is the Covenanters’ retention of independent troops, to build on a fleeting comment by Gavin Robinson that garrisons needed cavalry as much as field armies.⁸³ The integration of dragoons into cavalry regiments was a clear linear development from brigading infantry with cavalry which improved capability and this is another gap to be addressed. Also missing from the historiography is consideration of the integration of cavalry troops into infantry regiments, which merits analysis.

J. P. Cooper described the generic cavalymen of the period as cuirassiers (heavy) and harquebusiers (light) with which Young and Holmes agreed, although they also noted that the former was a rarity and obsolete by 1642.⁸⁴ The latter became the typical cavalryman of all of the British and Irish armies, Young describing him as wearing ‘a buff coat, with a breast and back plate and pot helmet [and armed with] a pair of pistols and sword’.⁸⁵ With minor variations this is the description given by Barratt, Carpenter, Furgol, Gentles, Holmes, and Reid, although Holmes suggested that the use of armour was in decline by at least 1648.⁸⁶ Unusually, the Covenanters continued to field lancers, a point noted by Cooper,

⁷⁹ Young, Holmes, *Military History*, pp. 333-334.

⁸⁰ Barratt, *Cavaliers*, p. 25. Singleton, *Famous by My Sword*, p. 11. Carpenter, *Military Leadership*, p. 48.

⁸¹ Furgol in *Scottish National Covenant*, pp. 143-144.

⁸² Reid, *Crown, Covenant and Cromwell*, pp. 40-41, p. 378. Singleton, *Famous by My Sword*, p. 11.

⁸³ Gavin Robinson, *Horses, People and Parliament in the English Civil War*, (Abingdon 2016), p. 5.

⁸⁴ JP Cooper, *The New Cambridge Modern History*, (Cambridge 1970), iv, p. 214. Young, Holmes, *Military History*, pp. 39-40.

⁸⁵ Peter Young, *The Cavalier Army*, (London 1974), p. 37.

⁸⁶ Barratt, *Cavaliers*, p. 25. Carpenter, *Military Leadership*, p. 48. Furgol in *Scottish National Covenant*, pp. 143-144. Furgol, *Regimental History*, pp. 8-9. Reid, *Crown, Covenant and Cromwell*, pp. 40-41, p. 378. Holmes, *Preston 1648*, p. 12. Young, Holmes, *Military History*, pp. 39-40. Gentles, *English Revolution*, p. 122.

Furgol, and Young who also noted their effectiveness.⁸⁷ Reid considered the retention of the lance as a way of compensating for lower quality cavalry mounts, a handicap also noted by Gentles, Holmes and Singleton.⁸⁸ The historiography makes clear that lancers were obsolete in Western Europe except in the Scots and Irish Confederate forces, but it does not consider the fact that they were very different troop types. The obsolete lancers were heavy cavalry armed with a heavy lance as archaic as the cuirassier: the Scots and Irish lancers were ‘normal’ cavalry additionally armed with a lance. Analysis of the equipment of Covenanter cavalry in the scholarship is generic (where it exists at all) and this thesis will therefore address this issue.

The dragoon, wrote Firth, ‘was as cheaply armed as he was mounted. Like the musketeer he wore no defensive armour’ and he ‘usually fought on foot’. This is typical of the descriptions across the historiography from Barratt, Furgol, Gentles, Holmes, Reid, Roberts and Young. Young and Holmes provided a list of tasks for which dragoons were well suited which included manning outposts, securing bridges and holding enclosures. Roberts noted their less glamorous roles such as ‘guarding convoys and supply trains’. In the historiography dragoons are often considered to be infantry which can move quickly enough to support cavalry but which still execute standard infantry tasks. The critical gap in this analysis is consideration of the interaction of dragoons with cavalry. Dragoons were infantry that could move at the speed of cavalry, both tactically and operationally, not simply more infantry which happened to be mounted. As a relatively new European innovation an analysis of the timeline for their adoption will illustrate the Covenanters’ appetite for tactical debate and development, possible vectors for the passage of new information and allow a comparison with Royalist and Parliamentary forces.⁸⁹

Artillery

The general consensus of historians of this period is that all siege guns and all but the smallest field guns were, as Tallet put it, ‘unwieldy and cumbersome’.⁹⁰ This, according to Young and Holmes made them difficult ‘to transport [...] and difficult to site’, with the result that according to Stevenson and David Caldwell, ‘once placed in position on the battlefield, they had to be left in the same position throughout the battle; thus they often proved virtually useless except in the opening stages of battles’.⁹¹ Malcolm Wanklyn agreed, judging that they could not ‘respond to any crisis that might emerge’ in the course of a battle.⁹² This assessment has been consistently made since at least 1870 when H. W. L. Hime, an artillery

⁸⁷ Peter Young, *Marston Moor 1644* (Moreton-in-Marsh 1997), p. 20. Furgol, *Regimental History*, pp. 8-9. Cooper, *Cambridge Modern History*, iv, p. 214.

⁸⁸ Holmes, *Preston 1648*, p. 12. Singleton, *Famous by My Sword*, p. 11. Gentles, *New Model Army*, p. 27.

⁸⁹ Firth, *Cromwell's Army*, p. 124. Barratt, *Cavaliers*, p. 57. Furgol *Regimental History*, p. 9. Gentles, *New Model Army*, pp. 25-28. Reid, *Scots Armies*, i, p. 22. Roberts, *Cromwell's War Machine*, p. 121. Young, Holmes, *Civil Wars*, p. 42.

⁹⁰ Tallet, *War and Society*, p. 33.

⁹¹ David Stevenson and David Caldwell, *Leather guns and Other Light Artillery in Mid-17th Century Scotland*, Proceedings of the Society of Antiquaries of Scotland Vol 108, 1976, p. 300.

⁹² Young, Holmes, *English Civil War*, p. 49. Malcolm Wanklyn, *A Military History of the English Civil War*, (London 2014), p. 29.

officer, wrote that artillery in the First English Civil War was noted for ‘its immobility’.⁹³ As a result of this, as Donagan put it, ‘the outcome of major battles and of many sieges did not depend on an artillery barrage’.⁹⁴ Agreement is such that even the dissenting voices lack conviction. Stephen Bull, despite arguing that artillery had an ‘important battlefield effect’, had to conclude that it was ‘not usually [...] the battle-winning weapon’.⁹⁵ Firth argued that it ‘played a much more important part [...] than is generally supposed’, but caveated his conclusions by noting that his ‘own want of technical knowledge’ made them less certain.⁹⁶ The result of this lack of mobility was that, as Barratt’s stated, ‘the main use of artillery was still in siege operations’, a conclusion which is also supported across the historiography.⁹⁷

It is a measure of the underdeveloped nature of the scholarship concerning artillery that Alexander Hamilton’s lightweight artillery is not considered in terms of an attempt to improve the performance of artillery on the battlefield. The Covenanters’ lightweight 3-pounder regimental guns are mentioned by Furgol and Edwards and their 12-pounder field guns by Terry, John Buchan, Rosie Serdiville, John Sadler, and Alisdair McRae, but all only in passing and all without any analysis.⁹⁸ This thesis shows that these weapons demonstrate the technical and tactical excellence of Alexander Hamilton. They represent the continuation of over a decade’s work on the development and production of lightweight artillery, begun under Gustavus Adolphus and later under the Duke of Saxony. The lack of analysis in the historiography represents a significant gap and this thesis therefore examines the purpose for which they were designed and how they were used.

The historiography is equally muddled about frames. Furgol variously described them as ‘groups of large muskets mounted on a box’, ‘multi-barrelled small-caliber guns’, and ‘multi-barrelled leather guns mounted on carts’. Reid has at different times described a frame as a term for both a gun and a gun carriage. Bull described ‘a light gun barrel mounted on [...] a three legged platform’, although this in fact describes an older weapon known as an Arquebuse à Croc.⁹⁹ Given such confusion in the scholarship, there is a need for an accurate description of the frames and what their purpose was.

⁹³ H. W. L. Hime, *The Mobility Field Artillery Past and Present*, Minutes of the RAI, 1870, vi, p. 442, p. 443.

⁹⁴ Donagan, *War in England*, p. 87.

⁹⁵ Stephen Bull, *The Furie of the Ordnance*, (Woodbridge 2008), p. 138, p. 164.

⁹⁶ Firth, *Cromwell’s Army*, p. 149.

⁹⁷ Barratt, *Cavaliers*, p. 70.

⁹⁸ Furgol in *Scottish National Covenant*, p. 144. Edwards in *Fighting for Identity*, p. 243. Terry, *Alexander Leslie*, p. 180. John Buchan, *Montrose*, (London 1928), p. 187. Serdiville, Sadler, *Siege of Newcastle*, p. 99. Alisdair McRae, *How the Scots Won the English Civil War*, (Stroud 2013), p. 101.

⁹⁹ Furgol, *Regimental History*, p. 42. Furgol in *Fighting for Identity*, p. 39, p. 46. Reid, *Scots Armies*, p. 27. Bull, *Furie of the Ordnance*, p. 12.

According to Bull, Burnet, Hime, Grosjean, Murdoch and Cathal Nolan, leather cannon were used by the Covenanters from the Bishops' Wars onwards. Grosjean described multi-barrelled versions and the deployment in 1640 of a leather cannon which could be 'mounted "swivel fashion" between two horses where they could be fired, reloaded and transferred to another location'. Stevenson and Caldwell, on the other hand, asserted that 'there is no contemporary evidence whatever' for the use of leather cannon in the Bishops' Wars. This confusion is typified by James Miller's assertion that James Wemyss' leather guns were nicknamed 'Dear Sandy's Stoups' after Alexander Hamilton (the Covenanters' first General of Artillery) when the epithet was actually applied to iron cannons ten years earlier.¹⁰⁰ The historiography is simply incorrect on the subject of leather cannon: this thesis shows that they were not in use by the Covenanters until Wemyss replaced Hamilton in 1649.

A further source of confusion in the historiography is the relationship between range and accuracy. Firth wrote that a culverin 'had an effective range of about 2,600 yards' and Bull quotes '2,100 yards' for the same type of gun.¹⁰¹ McRae offered a more modest estimate stating that 'extreme effective range of the heaviest Scottish artillery [24-pounder] is unlikely to have exceeded 1,000yd'.¹⁰² Bull wrote that attacking targets at long range was difficult and that the difficulty increased with the range. He noted that 'given a clear field of fire and a big target, an opening cannonade with 12 pound guns was perfectly feasible at seven or eight hundred yards' and 'a castle or town could certainly be bombarded at very long ranges'. He also wrote, however, that guns were 'often used at relatively short distances' and that garrisons were likely to surrender 'with gun batteries hammering at the walls from point blank range'.¹⁰³ He does not address this contradiction. Stephen Porter wrote of the advantage given by the long range of siege artillery, but also of their being deployed at 'pistol shot' from the walls.¹⁰⁴ Terry notes a range of 2100 paces (1750 yards) for a culverin, but also that at the Siege of York there was 'a battery about a hundred and sixty yards from the city walls'.¹⁰⁵ A. R. Hall, however, argued unequivocally that 'battles were fought at short range' because the existing levels of science and technology ruled out doing otherwise.¹⁰⁶ This thesis addresses this confusion by determining what the normal combat range of artillery was.

¹⁰⁰ Bull, *Furie of the Ordnance*, pp. 10-12. Gilbert Burnet, *Bishop Burnet's History of His Own Time*, (London 1815), i, p. 31. Hime, *Mobility of Field Artillery*, pp. 433-444. Grosjean, *Unofficial Alliance*, pp. 184-185. Grosjean, Murdoch, *Scottish Generals*, p. 115. Cathal Nolan, *The Allure of Battle*, (Oxford 2017), p. 89. Grosjean in *Ships, Guns, and Bibles*, p. 127. Stevenson, Caldwell, *Leather guns and Other Light Artillery*, p. 302. James Miller, *Swords for Hire*, (Edinburgh 2007), p. 137.

¹⁰¹ Firth, *Cromwell's Army*, p. 70. Bull, *Furie of the Ordnance*, p. 26.

¹⁰² McRae, *How the Scots Won the English Civil War*, p. 102.

¹⁰³ Bull, *Furie of the Ordnance*, p. 26, pp. 27-28, p. 106.

¹⁰⁴ Stephen Porter, *Destruction in the English Civil Wars*, (Stroud 2011), p. 53.

¹⁰⁵ Terry, *Papers Relating to the ASL&C*, i, lxxxix, xci, p. 25.

¹⁰⁶ A. R. Hall, *Ballistics in the Seventeenth Century*, (Cambridge 1952), p. 52.

Methodology and Sources

The methodology underpinning this thesis includes the development, analysis and comparison of timelines such as the return of veterans, mobilisation, training, or the provision of equipment. These individual timelines can be analysed in their own right, but two or more may also be compared with each other. For the Veterans Chapter this methodology involves identifying how many veterans returned over what timescale and thus identifying the degree of influence they could have exerted at specific points. Mobilisation timelines track activity from parliament to parish and will, where possible, determine how many men were mobilised and when, to determine any shortfall in levy numbers. These timelines will inform the training timeline for the later men were selected the less effective the training they could have received. For the Infantry, Cavalry and Artillery Chapters the timelines will allow changes in equipment, organisation and tactics to be analysed and explained. Their contributions to the outcomes of battles across the period will allow an assessment of effectiveness to be made including identifying improving or declining performance. Individual timelines can therefore be analysed in their own right, they can provide data and analysis for other timelines and multiple timelines can be analysed together.

For example, when the timeline of returning veterans in 1638/39 is compared to those for training and equipment procurement, it is quickly apparent that mobilisation activity was happening before the recall of veterans, which challenges the historiography's sequence of events. A comparison of the timelines for the selection of men for service, their equipping, training and despatch to the army rendezvous allows an assessment of the efficiency and effectiveness of the mobilisation system to be made. For the ASL&C, use of this methodology reveals that many men were selected so late that they could only have been partly trained, that many reached the army weeks after the rendezvous date and that several thousand men were only equipped after the army had invaded England. A more lateral thinking example is tracing the timeline of those involved in counter invasion planning in the 1620s who went on to be members of parliament, of shire committees and indeed Covenanter commanders, providing evidence both of military knowledge and of continuity rather than change.

Using timelines also enables identification and analysis of processes that put designs into action. Action taken in response to an Act of Parliament can be tracked through public and private records from national to local levels. In a mobilisation process, for example, this approach demonstrates how reliant the central authority was on the shires, burghs, nobility, gentry and the Kirk to deliver results. It also reveals a wide variety of local solutions to common issues, emphasising the importance of local initiatives within the overall system. That system may have been imperfect, but army after army was raised and marched to war. To understand how this was done requires a methodology which 'breaks open the black box'.¹⁰⁷

¹⁰⁷ Nathan Rosenberg, *Inside the Black Box*, (Cambridge 1982), p. 71.

When a generic statement such as “the Covenanters raised an army” is made in the historiography, the word “raised” is the black box: the input is an Act of Parliament for a levy and the output is an army. This methodology opens the black box, with the aim of knowing how a thing was done rather than confirming that it was done. In this example it highlights how interdependent the various elements of society listed above were when generating military capability. It can also demonstrate the strength or fragility of that capability when the levels of consent, compliance and coercion in society are assessed.

There are many primary sources which support this methodology at national, local and individual levels. This must however be caveated by acknowledging that there are significant gaps in the record, whether that is in terms of dates or geographical coverage. National level records include RPS, RPCS, CSPD, and records of the Committee of Estates, although the last exists only from 1643 onwards. NRS collections include the records of some 163 parishes and 36 presbyteries. These vary significantly in the years for which records survive and although the geographical coverage is quite comprehensive, details concerning military activity are relatively few. The records of 36 of the 54 Royal Burghs represented at their General Convention in July 1636 survive in whole or part which provide good coverage of lowland Scotland.¹⁰⁸ The surviving records of shire committees of war are extremely few. Three sets of minutes survive for meetings in Forfar in February 1639, April 1650 and April 1651; two for meetings in Renfrew in February 1639 and May 1640; and one in Kirkwall in November 1643. The most complete shire committee record is that of the Stewartry of Kirkcudbright for 1640/41.¹⁰⁹ There is, however, ample evidence of their activities in parliamentary business, local records and official and private correspondence. Contemporary diaries are relatively few, but those such as Aston’s, Baillie’s, Hope’s, and Wariston’s, provide excellent detail and perspective, although caveated by the need to account for any personal bias.¹¹⁰ There are numerous collections of correspondence and accounts, such as those compiled by Sir William Fraser and in the HMC’s Reports and these provide much of the evidence of activity in the shires needed to balance what might otherwise be a preponderance of burgh-centric evidence.

Although many of the primary sources used in this thesis have been studied before, this thesis nevertheless has used them to add new conclusions and insights to the scholarship. This can be explained in a number of ways. This thesis considered issues between 1638 and 1651 and sought examples of continuity of practice with the preceding decades. This required the analysis of a very broad range of source material. Using timelines and tables

¹⁰⁸ Alan MacDonald, Mary Verschuur, *Records of the Convention of Royal Burghs, 1555; 1631-1648*, (Woodbridge 2013), pp. 251-252.

¹⁰⁹ NRS GD393/75, GD16/50/48, GD16/50/60, GD393/75, GD3/9/4/3, RH9/15/211. J Nicholson, *Minute Book kept by the War Committee of the Covenanters in the Stewartry of Kirkcudbright in the Years 1640 and 1641*, (Kirkcudbright 1854).

¹¹⁰ J. C. Hodgson, *Journal of John Aston*, Surtees Society, (Durham 1910). David Laing, *Letters and Journals of Robert Baillie, 3 Vols*, (Edinburgh 1841). Thomas Hope, *Diary of the Public Correspondence of Sir Thomas Hope*, (Edinburgh 1843). Paul Morrison, *Diary of Sir Archibald Johnston 1632-1639*, (Edinburgh 1911). Laggan Mrs, *Diary of Sir Archibald Johnston 1639*, (Edinburgh 1896). David Fleming, *Diary of Sir Archibald Johnston Lord Warisotn 1650-54, Vol 2*, (Edinburgh 1919).

allowed both efficient information management and effective analysis of a significant amount of data. Timelines and tables present information visually as well as through the written word. This creates an analytical framework facilitating the identification of new perspectives and of patterns and connections between events, allowing new questions to be asked using familiar sources. As an example, by analysing and comparing the composition of Covenanter artillery trains (see Table 6.2), the lack of siege artillery with the army which invaded England in 1640 becomes apparent, as does the change in tactical approach when Wemyss replaced Hamilton as general of artillery.

More prosaically, a considerable amount of data was analysed which has been of only marginal interest to most previous scholars. This includes information on subjects such as Swedish feathers, artillery (including leather cannons and frames), regimental structures and pikemen's armour. Similarly, detailed statistical analysis of data in, for example, Terry's well known *Papers Relating to the ASL&C* and the lesser known Leith armoury accounts allowed new deductions to be made on a variety of subjects. These included regimental strengths, weapon and equipment issues (including whether provided by the English or Scottish Parliaments) and artillery ammunition expenditure in the major sieges conducted in England 1644/45. Fundamental to this is 'breaking open the black box': what, for example, did a regiment, planned to be of 1,000 men, two thirds armed with muskets and one third with pikes, actually look like when it was on campaign? The difference between what was planned and what was delivered is a key part of understanding Covenanter military capability and this methodology allows that to be determined.

Chapter 1 - Veterans

Introduction

The Covenanter leadership recognised the importance of veteran officers as both commanders and drillmasters from the outset. This was clear from the initial instructions to the shires' leadership in mid-1638 to audit their veterans and was confirmed in the Tables' initial mobilisation instructions of 1638/1639 which gave veterans command and training roles.¹ This is an example of continuity as it was neither a new initiative nor unique to the Covenanters. Veterans had been used in training roles in the 1620s and 30s in both England and Scotland and the Royalists in 1638/39 were equally active in recruiting veterans as trainers and commanders.² The military preparations for the First Bishops' War began in mid-1638, of necessity relying upon the expertise of veterans who had returned to Scotland in the 1620s and 1630s as no veterans had yet been recalled. Veteran numbers increased from the end of 1638 onwards as more men returned, but they numbered hundreds, not thousands. In early 1639 there were too few veterans either resident in Scotland or recently recalled from Europe, to form a ready-made army or even the substantial core of one, except in a very literal sense. Indeed, more Scottish officers in European service either tried and failed to return in 1639, joined the Royalists or chose not to return than answered the summons of the Covenanters (see Table 1.1).

Veterans, whenever they returned, were an important influence throughout the period 1638-1651. The degree of that influence varied over time and also depended on the individuals concerned: Alexander Leslie, Alexander Hamilton, David Leslie and Robert Monro, for example, had a far greater impact on the course of events than did many other veterans. They shared their knowledge of modern military practices, recent Scottish military experience, command, mobilisation and training. The majority of Scots mercenaries served in the Dutch, French and Swedish armies, but they also served with English, Bohemian, Danish, Venetian and Saxe-Weimar forces, meaning that there were greater or lesser military influences from many armies.³ The Council of War established in 1626 to coordinate the counter invasion preparations of 1626/27 included veterans with European service, a number of whom were subsequently active Covenanters.⁴ They provided continuity as the activity which they initiated and supervised in the shires provided the templates for the defensive plans implemented in the Bishops' Wars. Almost 80% of the Covenanters' generals throughout the period were continental veterans and until the Engagement

¹ Cosmo Innes, *The Black Book of Taymouth*, (Edinburgh 1855), pp. 391-392. NRS, PA7/2, GD16/52/19.

² CSPD 1625-1626, p. 220, p. 229. John Stuart, *Extracts of the Council Register of the Burgh of Aberdeen 1625-1642*, (Edinburgh 1871), pp. 3-4. National Library of Wales, *Chirk Castle MSS, F7442*. Donagan, *War in England*, p. 232. Hamish Ion, Keith Neilson, *Elite Military Formations in War and Peace*, (Westport Connecticut 1996), p. 77.

³ Olaf van Nimwegen *The Dutch Army and the Military Revolutions*, (Woodbridge 2010). William Forbes-Leith, *The Scots Men-at-Arms and Life-Guards in France*, (Edinburgh 1882). Fischer, *Scots in Sweden. RPCS 1627-1628*, p. 38, p. 51. Christophe Smout, *The Culture of Migration: Scots as Europeans 1500-1800*, History Workshop Journal, Autumn, 1995, No 40, p. 111. Robert Monro, *Monro His Expedition with the Worthy Scots Regiment Called Mac-Keys*, (London 1637). CSPV 1628-1629, pp. 571-573. William Fraser, *Earls of Haddington*, (Edinburgh 1889), ii, pp. 110-112.

⁴ RPS, A1625/10/8. RPCS 1625-1627, pp. 158-159, p. 169, pp. 337-338. RPCS 1627-1628, pp. 53-54, pp. 90-92.

(1648) this was a stable group (see Table 1.3). Veterans were also fully involved in mobilisation and training as members of shire committees, as commanders, in specialist roles such as artillerymen, and as instructors. A further consideration which makes analysis of the veterans' influence important is that as volunteers they were an essential consenting element in armies which were mostly compliant or coerced. In common with Royalist, English Parliamentary and Irish Confederate forces, veterans were an important component of military capability.

This analysis differs significantly from the existing scholarship. As outlined in the Introduction, the historiography concentrates on veterans recalled to Scotland and returning in late 1638 and early 1639, entirely overlooking veterans who were already there and their importance to the mobilisation process. These recalled veterans are described as the conduit which allowed the Covenanters to access modern military knowledge and to establish an effective mobilisation system.⁵ Given that military preparations began before they were recalled, there is a gap which must be addressed. There is also an emphasis on the influence of veterans of Swedish service, overlooking other likely national influences. In particular, continuity in the shape of traditional Scottish practice is overlooked and the degree of commonality of such practice with England. In addition, while estimates of the number who returned vary considerably, it is generally assumed to be high enough to form at least the core of the army and provide it with more than just a veneer of professionalism. This chapter addresses and revises the historiography in these areas.

Sources and Methodology

The starting point for this analysis is a timeline of the veterans' return, integral to which is an estimate of their numbers. Analysis of this timeline reveals that that men returned in relatively small numbers over a period of years, not in a great surge in time for the First Bishops' War. Focussing on individuals in the timeline shows that veterans returned from Europe throughout the 1620s and 1630s and that key leaders such as Alexander Leslie, Alexander Hamilton and Colonel Robert Monro were not recalled but were already in Scotland in early 1638. Studying the available biographical data for members of key groups such as shire committees, regimental and shire colonels and those commissioned as Covenanter generals provides a clear indication of the prevalence and influence of veterans over time.

Given the importance attached before and during the Bishops' Wars to both recruiting veterans and in the Royalists' case of preventing their return to Scotland, it is unsurprising that a wide variety of

⁵ Inter alia. Grosjean, *Unofficial Alliance*, p. 107, p. 188. Macinnes, *British Confederate*, p. 148-149 Spiers, Crang, Strickland, *Military History of Scotland*, p. 278. Stewart, *Military Power*, p. 71. Gentles, *English Revolution*, p. 14.

sources refer to veterans between 1638 and 1641. Official documents tracked their movements and reported when any were captured; accounts at all levels documented their pay, albeit fragmentarily; local records documented their widespread use as drill masters; and many were prominent at local or national level meaning that, once identified as veterans, their activity can often be traced in both official and private archives. Implicit in this last point is the most serious gap in the sources: those who were less prominent in society, feature fleetingly or not at all. The veterans who can be studied are not, therefore, representative of the whole. As the decision makers, influencers and key leaders, however, this is sufficient to enable an overall analysis of the contribution of the veterans.

Numbers and Timeline of Returning Veterans

As noted in the Introduction, some scholars have argued that complete infantry regiments sailed to Scotland, passing through the Denmark Sound in February 1639. Mark Adams argued that these were Monro's and Colonel George Fleetwood's regiments.⁶ Murdoch has reported Monro's return with one and two regiments, although most recently (with Grosjean) that he was only accompanied by an unspecified number of volunteers.⁷ Grosjean and Edwards have also separately argued that Monro led his own regiment back to Scotland.⁸ Although in December 1638 Fleetwood's and Monro's regiments only mustered 190 and 169 (all ranks) respectively, this would have been a significant increase in the number of veterans available in Scotland in early 1639.⁹ There is, however, a complete dearth of evidence for the arrival of whole regiments in Scotland at that time and conversely, there is clear evidence that Monro's 1639 regiment was levied in Scotland (see Chapter 4).¹⁰

Fleetwood's regiment mustered in Stargard, Pomerania between 30 January and 6 February 1639 recording a strength of 150 men (all ranks).¹¹ When it mustered again on 14 May 1639 in Stettin, Pomerania it recorded a total strength of 54 men in 5 'reformado' companies consisting of only their officer cadres and the regiment does not appear again in the Riksarkivet records.¹² Given that the Captain, Lieutenant and Ensign of each company in May (with the possible exception of one man) are the same men listed in January/February, Fleetwood's regiment cannot have sailed to Scotland in February, although individuals could have done so. Monro's Swedish regiment mustered 131 men (all ranks) in Stettin, Pomerania on 10 March 1639, clearly not having returned to Scotland in February.¹³

⁶ Adams, *England, the English and the Thirty Years' War*, p. 159.

⁷ Murdoch, *Terror of the Seas*, pp. 194-195. Grosjean, Murdoch, *Scottish Generals*, p. 89. Murdoch and Grosjean in Murdoch, Björklund, *The Business of War*, p. 35.

⁸ Grosjean, *Unofficial Alliance*, p. 172. Edwards in *Fighting for Identity*, p. 258.

⁹ Riksarkivet, SE/KrA/0022/1638/27, pp. 242-246, pp. 195-198.

¹⁰ Inter alia. NRS, GD26/7/158. Laing, *Baillie*, i, p. 192.

¹¹ Riksarkivet, SE/KrA/0022/1639/14, pp. 59-67.

¹² Riksarkivet, SE/KrA/0022/1639/16, p. 76.

¹³ Riksarkivet, SE/KrA/0022/1639/14, p. 277.

The sole evidence cited to support the return of these regiments is a 13 February 1639 letter from the Danish Chancellery to an officer involved in policing the Denmark Sound. ‘At the request of the Queen of Sweden the king has this time permitted that Monroe and Stuart may pass through the Sound with their recruits and equally Colonel Fleetwood with one English regiment and Colonel Hamilton with two Scottish regiments, and further 30 lasts of gunpowder, 30 ship’s pounds worth of match and 2,000 pairs of pistols’.¹⁴ In the *Danish Chancellery Letter Books*, however, the letter concludes with an additional sentence: ‘When they arrive in the coming summer, the addressee shall act accordingly’.¹⁵ This letter is not, therefore, a record of troops and equipment passing through the Sound in February 1639, but advanced warning and pre-authorisation of movements scheduled for the summer of that year. Whether or not such movements subsequently happened, no infantry regiments or large groups of veterans sailed to Scotland via the Denmark Sound in February 1639.

Table 1.1 summarises the timeline of returning Covenanter veterans, discussed in detail below. How many veterans returned and when they returned are the key factors to consider when assessing their impact on the Bishops’ Wars in particular. Covenanter veterans were returning to Scotland throughout the 1630s. These included William Kerr, 3rd earl of Lothian, colonels William Baillie, Alexander Hamilton, Robert Monro, William Home, George Home, Alexander Strachan, Lodowick Leslie, Sir James Scott of Rossie, James Scott and Robert Irvine of Monboddo.¹⁶ There is also evidence of the employment of drillmasters (a role for which veterans were preferred) in 1638/39: in Argyllshire (3), Dumbarton (1), Dunfermline (1), Elgin (1), Glasgow (1), Kirkaldy (1) and Perth (1).¹⁷ Scots officers from regiments in the French and Dutch armies were recruiting in Scotland in 1638. Those recruiters from France, led by Captain Alexander Erskine, were certainly persuaded to join the Covenanters’ forces as letters sent to France in August 1639 and August 1640 made clear.¹⁸ The same is likely to have been the case for those from Holland, as Dutch diplomatic correspondence shows that they were still in Scotland in May 1639.¹⁹ The significance of this is that there were veterans in Scottish society in various capacities before men were recalled to participate in the First Bishops’ War.

¹⁴ Inter alia. Grosjean, Murdoch, *Scottish Generals*, p. 96.

¹⁵ *Kancelliets Brevbøger, vedrørende Danmarks indre forhold I uddrag*, udgivne ved E. Marquard af rigsarkivet, 1637-1639. (Copenhagen, 1944), p. 673. Original text: ‘Naar de i den tilkommende Sommer ankommer, skal Adressaten rette sig herefter’.

¹⁶ Inter alia: Furgol, *Regimental History*, p. 29. SSNE Database, 534, 585, 8099, 1909. William Fraser, *Earls of Melville and Earls of Leven*, (Edinburgh 1890), ii, p. 84. Fraser, *Earls of Haddington*, ii, pp. 111-112. CSPD 1637-1638, p. 113. George Wishart, *The Memoirs of James Marquis of Montrose*, (London 1893), p. 58. William Cramond, *The Annals of Fordoun*, (Montrose 1894), p.45.

¹⁷ Innes, *Black Book of Taymouth*, p. 396. *Dumbarton Burgh Records 1627-1746*, (Dumbarton 1860), pp. 56-57. Andrew Shearer, *Extracts from the Burgh Records of Dunfermline*, (Dunfermline 1951), p. 206. William Cramond, *The Records of Elgin*, (Aberdeen 1903), i, p. 263. JD Marwick, *Extracts from the Records of the Burgh of Glasgow*, (Glasgow 1876), i, p. 391, p. 483. L MacBean, *The Kirkaldy Burgh Records*, (Kirkaldy 1908), p. 160. Thomas Marshall, *The History of Perth*, (Perth 1849), p. 181.

¹⁸ Robertson, *Sir Robert Moray*, pp. 9-10. *HMC Fourth Report, Appendix*, (London 1874), pp. 523-524.

¹⁹ Ferguson, *History of the Scots Brigade*, i, p. 437.

Summary of Returning Veterans. Asterisks indicate returns in time for First Bishops' War.			
Dates	Description	Number	Remarks
Known to have served in Covenanter forces.			
1630-39 ²⁰	Individuals	36*	
1638/39 ²¹	Erskine's recruiting team	Min 2*	
Oct 1638 ²²	Leslie arrived in Newcastle	27*	Met by 26 veterans
Nov 1638 ²³	Captured at sea and released	15*	'About fifteen'
May 1639 ²⁴	Captured near Flamborough Head	18	
May 1639 ²⁵	Imprisoned at Berwick	20	'About 20'
June 1639 ²⁶	<i>Ship from Holland captured</i>	<i>Not known</i>	
June 1639 ²⁷	Officers imprisoned in London.	26	Total 42. 16 in Flamborough Head group.
Winter 1639/40 ²⁸	Aberdeen's group	12	3 captured at sea 1639
	Johnstone's group	9	
	<i>Glasgow's group</i>	<i>Not known</i>	
	<i>Lanarkshire and Cunningham group</i>	<i>Not known</i>	
	<i>Loudon and others' groups</i>	<i>Not known</i>	'Large numbers'
	Eglinton's group	2	Total 8. 6 in 1630-39 Individuals group above.
	Kirkcudbright's group	Min 3	'Stewart and his officers.'
	Fife's group	Min 2	'Officers of fortoun'
1640 ²⁹	Documented individuals.	10	
April 1640 ³⁰	Shipwrecked/captured at Tynemouth	6	
Nov 1640 ³¹	Hamburg group	26	David Leslie plus 25
By 1644 ³²	Robert Lumsden	1	
Early 1644 ³³	Veterans serving in ASL&C. No known return dates.	58	<i>Possibly duplicated in unnamed/ unnumbered groups above.</i>
Could have served with Covenanter forces			
1634 ³⁴	Robert Irvine of Monboddo	1*	Aged 66 in 1638
1637/38 ³⁵	Dutch/Swedish service records end	88	Destinations unknown
1638 ³⁶	Scots/Dutch recruiting team	Min 4*	'Sergeants and other officers'
May(?) 1639 ³⁷	Discharged from Swedish service	19	<i>Possibly duplicated in unnamed groups.</i>
1640 ³⁸	Various individuals.	8	Destinations unknown
Totals			
	Known to have served.	Min 215-273	<i>Variables: 19 discharged from Swedish service and ASL&C 58 who could be counted twice.</i>
	Could have served.	Min 101-120	

Table 1.1

- ²⁰ SSNE Database, 534, 585, 1909, 3265, 8099. Furgol, *Regimental History*, p. 29. Fraser, *Earls of Melville and Earls of Leven*, ii, p. 84. Fraser, *Earls of Haddington*, ii, pp. 111-112. CSPD 1637-1638, p. 113. Wishart, *Marquis of Montrose*, p. 58. Innes, *Black Book of Taymouth*, p. 396. Marwick, *Burgh of Glasgow*, i, p. 391, p. 483. Fischer, *Scots in Sweden*, pp. 114-115. Marguerite Wood, *Extracts from the Records of the Burgh of Edinburgh 1626-1641*, (Edinburgh 1936), p. xxxvii. William Fraser, *Memorials of the Montgomeries*, (Edinburgh 1859), ii, p. 292. Laing, *Baillie*, i, pp. 200-201. Archibald Cameron, *The History of Fettercairn*, (Paisley 1899), p. 47. Gordon, *Britane's Distemper*, p. 6.
- ²¹ Alexander Robertson, *The Life of Sir Robert Moray*, (London 1922), pp. 9-10.
- ²² Fischer, *Scots in Sweden*, p. 114
- ²³ John Rushworth, *Historical Collections of Private Passages of State*, (London 1721), iii, p. 979.
- ²⁴ RPS, A1641/8/137.
- ²⁵ Burnet, *Dukes of Hamilton*, p. 132
- ²⁶ CSPV 1636-1639, xxiv, p. 546.
- ²⁷ John Nalson, *An Impartial Collection of the Great Affairs of State*, (London 1682), i, p. 223. Marwick, *Burgh of Glasgow*, i, p. 483. NRS, GD3/9/3/2.
- ²⁸ Stuart, *Burgh of Aberdeen 1625-1642*, pp. 193-195. William Fraser, *The Annandale Family Book*, (Edinburgh 1894), i, pp. 187-188. Fraser, *Memorials of the Montgomeries*, i pp. 240-241, ii pp. 292-293. Nicholson, *Minute Book*, p. 7. William Stevenson, *The Presbytrie Booke of Kirkcaldie*, (Kirkcaldy 1900), p. 178, p. 179.
- ²⁹ George Seton, *The House of Moncrieff*, (Edinburgh 1890), p. 47. RPS, 1641/8/234. SSNE Database, 220, 3134, 3472. Fischer, *Scots in Sweden*, p. 114. Furgol, *Regimental History*, p. 58. James Turner, *Memoirs of His Own Life and Times*, (Edinburgh 1829), p. 11, pp. 15-16. NRS, GD3/9/5/3/39/1, /5, GD3/9/5/1/9.
- ³⁰ RPS, A1641/8/138.
- ³¹ CSPD 1640-1641, pp. 101-102.
- ³² SSNE Database 514.
- ³³ Rushworth, *Historical Collections*, v, pp. 604-605.
- ³⁴ Cramond, *Annals of Fordoun*, p. 45.
- ³⁵ SSNE Database: 431, 529, 1192, 1775, 1787, 1890, 1912, 1926, 1943, 1991, 2017, 2050, 2119, 2199, 2125, 2171, 2259, 2284, 2292, 2293, 2301, 2322, 2341, 2393, 2403, 2407, 2437, 2483, 2498, 2516, 2527, 2557, 2600, 2620, 2630, 2644, 2646, 2649, 2650, 2696, 2709, 2768, 2772, 2773, 2776, 2797, 2824, 2842, 2857, 2858, 2898, 2904, 2911, 2949, 2955, 2977, 3013, 3084, 3088, 3151, 3206, 3301, 3363, 3376, 3425, 3436, 3450, 3490, 3491, 3510, 3537, 3564, 3568, 3572, 3597, 3648, 3667, 3678, 3743, 3746, 3757, 3773, 4907, 6691, 7741, 7742, 7743, 8223.
- ³⁶ James Ferguson, *Papers Illustrating the History of the Scots Brigade, 1572-1782*, (Edinburgh 1899), i, p. 437.
- ³⁷ Riksarkivet, SE/KrA/0022/1639/16/78, SE/KrA/0022/1639/18/49.
- ³⁸ Fischer, *Scots in Sweden*, p. 114.

The Venetian ambassador in the Hague sent intelligence to the Doge on 25 October 1638 which made it clear that the developing situation in Britain was no secret in the military community. A ‘good number of the officers here, both English and Scots,’ he wrote, ‘are asking permission to return to their native country’.³⁹ The accuracy of this information was soon proven. Alexander Leslie arrived in Newcastle in October 1638 and was met by ‘twenty-six of his former companions-in-arms in the Swedish wars’.⁴⁰ Another group of ‘about fifteen Scottish Commanders’ were captured at sea on 22 November 1638 and then released and allowed to proceed to Scotland.⁴¹ The reason for their capture and release was that the Royal Navy was boarding ships on the pretext of searching for arms when they were actually seeking Alexander Leslie, which is another indication that the movement of veterans was no secret.⁴²

It is unclear exactly when letters were sent to recall men serving in Europe. Spalding (a contemporary historian) explicitly associates the recall letters with Leslie saying that ‘he causit send for the most expert and valiant capitanes, liuetennantis, and underofficiares’ across Europe. Although he gives no date, writing only ‘about this tyme’, in the structure of his history it is placed in January 1639.⁴³ The Covenanters’ mobilisation instructions were undated but were explicitly referred to by John Stewart, 1st earl of Traquair in a letter dated 5 January 1639: the instructions used the future tense when saying that veterans should be recalled from Europe.⁴⁴ Sir James Lumsden received a recall letter in February 1639, writing to Axell Oxenstierna to report that he had ‘received from the Scottish Estates [...] a peremptory call home, which I cannot disobey’.⁴⁵ The evidence shows that junior ranks from captain to private soldier were among the returners: they would not have received personal letters.⁴⁶ This makes it likely that circular letters were despatched to be passed on once read and that recipients were asked to encourage others to return, which was certainly the case with equivalent Royalist letters discussed below. However it was done, the message was passed to the lower ranks and some were able to secure their discharges to return to Scotland.

It is possible to identify veterans who had returned to Scotland by the first months of 1639. Colin Pittscottie returned from Swedish service in time to be the Lieutenant Colonel in Monro’s regiment which was raised in March 1639.⁴⁷ Colonels James Lindsay of Belstane and Ludovic Blair were recorded as

³⁹ *CSPV 1636-1639*, pp. 464-465.

⁴⁰ Fischer, *Scots in Sweden*, p. 114.

⁴¹ John Rushworth, *Historical Collections of Private Passages of State*, (London 1721), iii, p. 979.

⁴² NRS, *GD406/1/685*.

⁴³ Spalding, *Memorials of the Troubles*, i, p. 130.

⁴⁴ Earl of, Hardwicke *Miscellaneous State Papers*, (London 1778), ii, p. 124. NRS, *GD16/52/19, PA7/2*.

⁴⁵ Fischer, *Scots in Sweden*, pp. 114-115.

⁴⁶ RPS, *A1641/8/137*. Fraser, *Memorials of the Montgomeries*, ii, pp. 292-293.

⁴⁷ Furgol, *Regimental History*, p. 33. SSNE Database 3265.

Edinburgh's 'town commanders' in March 1639.⁴⁸ There were seven veteran officers in Montgomery's brigade in 1639 (out of over 50 officers down to the rank of sergeant based on the 1640 structure – see Chapter 4) who must therefore have been in Scotland from at least May 1639.⁴⁹ A Captain Montgomerie, who had seen 'service abroad' commanded a company in Monro's regiment from March 1639.⁵⁰ John Middleton, a veteran of French and Swedish service returned in time to fight at the Bridge of Dee in June 1639.⁵¹ Robert Moray, an artilleryman, had returned from French service by early 1639.⁵² Hugh Montgomery's brigade included a Dutch lieutenant in 1639 who was a mercenary.⁵³ Estimating the numbers of other veterans who may have returned in time to serve in one or both Bishops' Wars is made difficult by the fragmentary nature of the evidence. The SSNE Database shows at least 88 Scots officers whose Dutch or Swedish records of service ended in 1637 and 1638, but whose subsequent destinations are unknown.⁵⁴ Muster rolls of Scots officers discharged from Swedish service, probably in May 1639, listed the intended destinations of 19 out of 37 (51%) as Scotland, although there is no evidence of their return dates or their loyalties.⁵⁵ The return dates of 58 of the known veteran officers of the ASL&C in early 1644 are unknown. They could have been in the groups of unnamed veterans noted in Table 1.1, so they cannot simply be added to the total as they might be counted twice.⁵⁶ From all the above evidence it is possible to say that there were at least 80 veterans available to the Covenanters during the First Bishops' War although most of their ranks are unknown (see Table 1.1 (asterisked entries) and Table 1.2). This figure is certainly too low, but it clearly indicates that the order of magnitude for the number of returning veterans is measured in the low hundreds, not in the thousands.

Known Ranks of Veterans who Returned Before the First Bishops' War					
Gen/Col	Lt Col	Captain	Lieutenant	Sergeant	Unknown
11	9	3	2	4	51
Table 1.2					

Veterans who were retained in Covenanter service over the winter of 1639/1640 could have arrived early enough to participate in the First Bishops' War, but there is no evidence of this. Indeed, on the contrary, at least 3 of the 12 who wintered in Aberdeen spent that war as prisoners of the king.⁵⁷ There were at least eight other known groups of veterans retained over that winter. James, Lord Johnstone of Lochwood had nine officers in Dumfriesshire.⁵⁸ Glasgow's burgh accounts indicate that the town

⁴⁸ Wood, *Burgh of Edinburgh 1626-1641*, p. xxxvii.

⁴⁹ Fraser, *Memorials of the Montgomeries*, ii, p. 293. NRS, GD3/9/5/3/16.

⁵⁰ Laing, *Baillie*, i, pp. 200-201.

⁵¹ Cameron, *History of Fettercairn*, p. 47.

⁵² Gordon, *Britane's Distemper*, p. 6.

⁵³ Fraser, *Memorials of the Montgomeries*, ii, p. 292.

⁵⁴ See Table 1.1.

⁵⁵ Riksarkivet, SE/KrA/0022/1639/16/78, SE/KrA/0022/1639/18/49.

⁵⁶ Rushworth, *Historical Collections*, v, pp. 604-605.

⁵⁷ Stuart, *Burgh of Aberdeen 1625-1642*, pp. 193-195. John Nalson, *An Impartial Collection of the Great Affairs of State*, (London 1682), i, p. 223.

⁵⁸ William Fraser, *The Annandale Family Book*, (Edinburgh 1894), i, pp. clxxxvii-clxxxviii.

employed half a dozen men at most, based on known rates of pay.⁵⁹ In April 1640 John, 8th Lord Fleming and Robert, 8th Lord Boyd were instructed to pay an unspecified number in Lanarkshire and part of Cunningham.⁶⁰ There are no details for 'Loudon and others', other than that they retained 'large numbers of [veterans]' and Alexander Montgomery 6th earl of Eglinton employed eight men in Ayrshire over the winter.⁶¹ The Stewartry of Kirkcudbright employed 'Lieutenant Collonell Stewart and his officers' and an unknown number of 'Officiars of fortoun' wintered in Fife.⁶² These groups consisted of at least 31 men who, in addition to the unknown numbers in some of the groups, could have been in Scotland in early 1639, but were certainly there at the end of the year. An estimate of the numbers of veteran officers retained over the winter of 1639/40 is not possible, but the order of magnitude is again in the low hundreds, not in thousands.

Another factor which reduced the number of recalled veterans available to the Covenanters was that many were intercepted and arrested by the Royal Navy. In May 1639 two ships, one carrying 'about 20' returning officers and the second carrying 18, were captured at sea.⁶³ A third ship with an unknown number of officers returning from Holland was captured in June.⁶⁴ There were 42 Scots officers who were prisoners in London in June 1639, being held for refusing to swear an oath rejecting the National Covenant.⁶⁵ At least 16 of these were part of the group of 18 captured in May, but none was in the group of 20 as they were imprisoned in Berwick not London.⁶⁶ They were released in time for the Second War and there is evidence that at least a third did return to Scotland: three were in Aberdeen in December 1639 and all of the group of 18 captured at sea had been released by September 1639. At least 64 men, therefore, were captured but were released before the Second Bishops' War.

There were veterans who definitely did not return in time for the First Bishops' War but participated in the Second, such as John Leslie and James Ramsay (both veterans of French service) who returned in time to be commissioned as colonels in 1640.⁶⁷ Henry Lindsay did not petition to leave Swedish service until May 1639, but he commanded a regiment in 1640/41.⁶⁸ A Hew Montgomery appeared in Swedish muster rolls in 1639, but not in 1640, so he may have fought in the Second Bishops' War.

⁵⁹ Marwick, *Burgh of Glasgow*, i, p. 483. Their total monthly pay was approximately £84. The Aberdeen group was paid monthly as follows: Lt Col £133, Captain £66, Lieutenant £30, Ensign £24 and Sergeant £12.

⁶⁰ NRS, GD3/9/3/2.

⁶¹ Fraser, *Memorials of the Montgomeries*, i pp. 240-241, ii pp. 292-293.

⁶² Nicholson, *Minute Book*, p. 7. William Stevenson, *The Presbytrie Booke of Kirkcaldie*, (Kirkcaldy 1900), p. 178, p. 179.

⁶³ Burnet, *Dukes of Hamilton*, p. 132. RPS, A1641/8/137.

⁶⁴ CSPV 1636-1639, xxiv, p. 546.

⁶⁵ Nalson, *Impartial Collection*, i, p. 223.

⁶⁶ CSPD 1639, p. 226.

⁶⁷ George Seton, *The House of Moncrieff*, (Edinburgh 1890), p. 47. RPS, 1641/8/234.

⁶⁸ SSNE Database, 220. Fischer, *Scots in Sweden*, p. 114. Furgol, *Regimental History*, p. 58.

War.⁶⁹ Hugh Fraser returned in time to serve as Monro's lieutenant colonel in early 1640.⁷⁰ James Turner was briefly in Scotland in early 1639, but despite acknowledging 'verie great rumours of civile wars', he went back to Europe. He returned in September 1640 and was appointed as the major in Kirkcudbright's regiment.⁷¹ There were '3 Cap[tains] of Fortune' and a German lieutenant in Montgomery's brigade in 1640/41.⁷² General David Leslie and a group of 25 other officers were scheduled to leave Hamburg on 1 November 1640, although this was after the Cessation of Arms signed on 26 October.⁷³ T. H. A. Fischer listed another eight officers who left Swedish service in 1640 whose destination is not known.⁷⁴ A ship carrying six veterans was captured at sea in April 1640.⁷⁵ Although this amounts only to some 40 officers, that is a significant number in the context of only several hundreds of veterans returning over a period of two to three years. It also makes clear that where the historiography argues that there was a decisive mass return in 1639, it is incorrect.

Another group of veterans which must be considered are those who returned for the king. It is beyond the scope of this thesis to consider all the veterans who returned for the king, but an overview is necessary to demonstrate that the Covenanters were not unique in actively seeking experienced soldiers. Royalist veterans returned in 1639/40 when recalled or on their own initiative, but others had returned in proceeding years. An early 1639 list recorded some 200 'officers & gentlemen that [had] served in foreign parts and [...] now elected for his Majesty's service'.⁷⁶ This list included men who had returned years earlier and is significantly higher than any Covenanter figure which can be proven. Sir Francis Willoughby was 'called out of the Low Countries to attend His Majesty's service' in early 1639, early enough to allow him to assume the role of Governor of Carlisle in April that year.⁷⁷ In one of the muster rolls of Scotsmen discharged from Swedish service noted above, in addition to those listed as travelling to Scotland, two sergeants are listed as returning to England. Although there is no evidence of their return dates, the destination (and the surnames Warner and Griffin) makes it possible that they intended to serve the king.⁷⁸ In contrast, in June 1639 Captain Mackmoiler, 'hearing of the expedition for Scotland and knowing that some Scotch officers had gone thither upon being sent for [...] procured his discharge and came to England'.⁷⁹ Higher profile Scottish Royalist veterans who had returned by 1639 included James, 3rd marquis of Hamilton, George Gordon, 2nd marquis of Huntly, Ludovic Lindsay, 16th earl of Crawford, General Alexander Leslie of Auchintoul, General Patrick Ruthven, General John Ruthven,

⁶⁹ SSNE Database, 3134.

⁷⁰ SSNE Database, 3472.

⁷¹ James Turner, *Memoirs of His Own Life and Times*, (Edinburgh 1829), p. 11, pp. 15-16.

⁷² NRS, GD3/9/5/3/39/1, /5. GD3/9/5/1/9.

⁷³ CSPD 1640-1641, pp. 101-102.

⁷⁴ Fischer, *Scots in Sweden*, p. 114.

⁷⁵ RPS, A1641/8/138.

⁷⁶ Donagan, *War in England*, p. 232. Ion, Neilson, *Elite Military Formations*, p. 77.

⁷⁷ HMC, Twelfth Report, *The Manuscripts of the Earl Cowper*, (HMSO 1888), ii, p. 222.

⁷⁸ Riksarkivet, SE/KrA/0022/1639/16/78.

⁷⁹ CSPD 1639-1640, p. 263. Cox, Bliss, Ogle, *Calendar of the Clarendon State Papers*, (Oxford 1872), i, p. 179.

Colonel Robert Leslie of Kinclaven, Lieutenant Colonel William Johnston, Lieutenant Colonel Alexander Ruthven and the Master Gunner of England, James Wemyss.⁸⁰ John Manners, 8th earl of Rutland noted in his diary in May 1639 that a group of 30 ‘Scotchmen’ had returned from Germany and offered ‘ther service to the Kinge to serve against ther Countrymen the Covenanters’.⁸¹ As Murdoch and Grosjean have pointed out ‘England had as many veterans to draw on as Scotland [and] many Scottish veterans [returned to serve] their ‘Dread Sovereign’’.⁸² Again, divining accurate numbers is impossible but the evidence shows that it is likely that considerably more veterans served the king in 1639 than served the Covenanters.

After the First Bishops’ War there was no lesser effort made. On 1 November 1639 Sir Francis Windebank, one of the king’s Secretaries of State, wrote to Sir John Conyers in Holland asking him to return and when Conyers hesitated he was told he would be made governor of Berwick ‘by patent during [his] life’ which he accepted. He was also told to ‘persuade as many as [he found] fit for his Majesty’s service to transport themselves into England’.⁸³ In early February Sir Nicholas Byron, a member of the king’s Council of War, was sent to Holland to arrange for the return of 100 sergeants and corporals who were to be replaced by 200 new recruits, although it is not clear with what success.⁸⁴ On 24 February 1640 the Venetian Ambassador reported that ‘many English captains [had] arrived from Holland and others [were] expected soon’.⁸⁵ There were also specific efforts to recruit Scotsmen to the king’s cause, which would have reduced the numbers joining the Covenanters. In February 1640, the king wrote to General Patrick Ruthven pressing him to encourage ‘as many other officers as will enter into our service’ as he could.⁸⁶ In March 1640 Sir Thomas Roe wrote to Secretary Windebank from Germany referring to the ‘command to persuade good Scotch officers to [volunteer for] his Majesty’s service’.⁸⁷ In December 1640 the ‘Treasurer-at-Wars’ in London authorised the payment of an unspecified number of ‘Scotch reformados’.⁸⁸ In February 1643 Alexander, Lord Forbes, a Scots veteran of Swedish service, was appointed ‘Lieutenant-general of the additional [English] forces for Ireland’.⁸⁹ It is clear, therefore, that Royalist efforts to recruit veterans were at least equal to those of the Covenanters and they appear to have met with at least a similar measure of success, including in recruiting Scotsmen.

⁸⁰ DNB, *Hamilton*. Forbes-Leith, *Scots Men-at-Arms*, i, pp. 115-116. P.R. Newman, *The Old Service Royalist Regimental Colonels and the Civil War 1642-46*, (Manchester 1993), p. 47. SSNE Database, 2916, 3413, 191, 2932, 3949, 1169. CSPD 1638-1639, p. 10.

⁸¹ HMC, *Twelfth Report, The Manuscripts of his Grace the Duke of Rutland*, (HMSO 1888), i, p. 511.

⁸² Murdoch, Grosjean, *Scottish Generals*, p. 97.

⁸³ CSPD 1639-1640, p. 312, p. 327, p. 420.

⁸⁴ CSPD 1639-1640, p. 431.

⁸⁵ CSPV 1640-1642, xxv, p. 20.

⁸⁶ CSPD 1639-1640, pp. 487-488.

⁸⁷ CSPD 1639-1640, p. 548.

⁸⁸ CSPD 1640-1641, p. 304. JHC, iii, p. 978.

⁸⁹ SSNE Database, 1616. RPCS 1638-1643, p. 391.

Consideration must also be given to veterans who either remained abroad or left Scotland during this period. The SSNE database contains entries for at least 132 Scots officers whose activities in Europe for all or most of the period 1638-1651 clearly show that they stayed in Europe. Murdoch and Grosjean noted that ‘the loss of over 300 Scottish officers in the years between 1636 and 1639 forced a reorganization of the remnant British regiments in the Swedish army’, but also that ‘a condition of the release of Alexander Leslie and his cohort in the 1638–40 period was that many Scottish officers were required to stay in Swedish service’. There was a requirement for ‘a new round of reorganization within the Swedish army when Colonels David Leslie, James Lumsden and Lieutenant Colonel George Monro’ left Swedish service along with 26 other officers. They argue, however, that ‘not even this second exodus significantly reduced the senior Scottish officer corps in Sweden as soon more junior officers were elevated through the ranks to replace them’.⁹⁰ When the Swedes attacked Prague in October 1648 ‘10 out of the 21 native Swedish infantry regiments had Scottish colonels’ and ‘eight more German regiments were also commanded by Scots’, which demonstrates that for a considerable number, the British wars were not the priority.⁹¹

In October 1641 William, Prince of Orange, asked permission of the Privy Council of Scotland to send ‘a good number of Scots officers’ to Scotland to recruit their regiments, indicating that they had not been involved in the Bishops’ Wars.⁹² There are also at least 75 Scots officers who first appear in European records between 1638 and 1640 all of whom continued in European service thereafter.⁹³ It is impossible to tell if any of them were veterans, but some veterans certainly left during the civil wars in Britain and Ireland to serve abroad. Robert Moray, mentioned above, had returned to France to command La Garde Ecosaise by 1645, although he returned to Scotland once again during the Engagement.⁹⁴ To these numbers must be added a group of 32 Scotsmen, who left Dutch service in August 1642 to participate in the First English Civil War. Whether they favoured King or Parliament in 1642 is not known, but they had not returned to fight for the Covenant during the Bishops’ Wars.⁹⁵ Well over 250 Scots officers chose either to join the king or not to get involved, which is further evidence against large numbers returning to defend the Covenant.

Much of the historiography bases estimates of the number of veterans in Covenanter forces, at least in part, on the assumption that the instructions issued by the Covenanters’ in late 1638 to organise

⁹⁰ Murdoch, Grosjean, *Scottish Generals*, p. 90, p. 145, p. 149.

⁹¹ Murdoch, Grosjean, *Scottish Generals*, pp. 167–168. Murdoch in Jones, *Britain Turned Germany*, pp. 35–36.

⁹² RPS, *A1641/8/90*.

⁹³ SSNE Database – analysis of individual entries.

⁹⁴ Robertson, *Sir Robert Moray*, pp. 58–60.

⁹⁵ Edward Peacock, *The Army Lists of the Roundheads and Cavaliers*, (London 1874), pp. 92–94.

the fencible population into regiments were obeyed.⁹⁶ No numbers were given for cavalry or artillery, but the intent was to fill 26 officers' posts in each foot regiment (of 8 companies) with veterans. Importantly, this was caveated by the comment that 'if so many cannot be had from abroad so many must be taken as may be had'.⁹⁷ This clearly provides no evidence for the actual number of veterans, and significantly it is an expression of doubt that enough men could be found. One reason for the doubt was that this requirement referred to the organisation of the entire fencible population into regiments which, using the fourth man figures from the 1643/44 levies, was some 129,000 men.⁹⁸ This would have required 2000-2600 veterans (the Tables allowed 7, 8 or 9 companies per regiment), a total unsupported by the available evidence. There is no evidence that these aspirations were met.⁹⁹ They cannot, therefore, be used to assume the number of available veterans.

The return to Scotland of officers with experience of European service is difficult to plot definitively. However, the evidence supports the contention that between 1638 and 1643, only some 300-350 veterans returned to Scotland, the majority between late 1638 and late 1640. Given the fragmentary nature of the records the actual figure may have been higher, but not significantly so. The pool of men who could have returned for the Covenant was further reduced by an unknown proportion of returning veterans being Royalists. That well over 200 veterans did not return or left Scotland in the same period also mitigates against a much higher figure, as does the Venetian Ambassador's report dated 13 January 1640 that the Covenanters 'keep 400 officers on half pay'.¹⁰⁰ While this is clearly a conveniently rounded figure, it is also quite precise in terms of the order of magnitude. A further argument against a greater number is to be found in a December 1639 letter written by James Elphinstone, 2nd Lord Balmerino to Eglinton concerning an issue with retaining Lieutenant Colonel Richardson who had served in Eglinton's regiment in 1639. Balmerino's advice was to employ Richardson for now because if there was another mobilisation there would be enough vacancies to allow Richardson to move on without difficulty, enabling Eglinton to appoint his own man.¹⁰¹ That being so and given that Eglinton only had seven veterans in his foot regiment in 1639, there could hardly have been a surfeit of veterans.¹⁰² As noted above, surviving pay records show that Eglinton's son, Viscount Hugh Montgomery, had '3 Cap[tains] of

⁹⁶ Inter alia. Gentles, *English Revolution*, pp. 13-14. Furgol, *Regimental History*, p. 2. Fissel, *Bishops' Wars*, pp. 81-82. Grosjean, *Unofficial Alliance*, p. 172. Macinnes, *British Confederate*, p. 164-165. Reid, *Crown Covenant and Cromwell*, p. 28.

⁹⁷ *CSPD 1638-39*, pp. 405-410. NRS, PA7/2, GD16/52/19.

⁹⁸ *Instructions sent be the Committee of the Estates*, December 11, 1643. RPS, 1644/1/67.

⁹⁹ Inter alia. Furgol, *Regimental History*, p. 2. Michael Lynch, *Scotland: A New History of Scotland*, (London 1992), p. 271. 1994 Fissel, *Bishops' Wars*, pp. 81-82. Grosjean, *Unofficial Alliance*, p. 172. Macinnes, *British Revolution*, pp. 123-124. Reid, *Crown, Covenant and Cromwell*, p. 6. Spiers, Crang, Strickland, *Military History of Scotland*, p. 278.

¹⁰⁰ *CSPV 1640-1642*, xxv, p. 12.

¹⁰¹ Fraser, *Memorials of the Montgomeries*, i, pp. 240-241.

¹⁰² Fraser, *Memorials of the Montgomeries*, ii, p. 293.

Fortune' of unknown nationality and a German lieutenant in his brigade in 1640/41, but this was a tiny proportion of a force with recorded strengths between 1,709 and 1,535 men.¹⁰³

Between July 1638 and May 1639, the total number of veterans available to the Covenanters was boosted by recalled officers, but that total was only of the order of magnitude of 150-200. This number probably increased to well over 200 by the end of 1639 and to over 300 by the time of the invasion of England in 1640. Once these recalled veterans dispersed to fill regimental and company appointments and to act as drillmasters, they would have been spread very thinly. In May 1639, for example, Eglinton deployed with 1800 infantry and 200 cavalry and again in June with 1000 infantry and 300 cavalry. Including his son Hugh, he had a total of ten veterans, although only one was a cavalry officer, to assist with the command and training of these men and others left in Ayrshire to guard the coast.¹⁰⁴ They provided Eglinton with 'an officer cadre', but they were hardly 'a large professional core on which to build'.¹⁰⁵ By the same token, a few hundred recalled veterans were too few, on their own, to result in a war of 'untrained peasants [against] practised soldiers' or to give Scotland 'the advantage [of] a standing army'.¹⁰⁶ Military preparations were under way before any veterans were recalled from Europe in 1639: this clearly demonstrates that there were already European veterans and others with sufficient military experience in Scotland. The number of recalled veterans was too few and the timeline for their return too extended for them to have had an immediate and transformative impact on a fencible population of some 129,000 men or on large field armies drawn from it. Rather, they provided a steadying hand on the tiller of a ship whose course was already set.

Early Military Activity

Alexander Leslie arrived in Edinburgh from London on 29 March 1638 and until his departure for the Swedish court in late July to seek a release from his commission, he was in attendance when the Tables sat in Edinburgh to provide military advice.¹⁰⁷ He must therefore have been involved in the planning behind the instructions which were clandestinely sent by the Tables in Edinburgh to the shires in early July 1638. These instructions were the catalyst which sparked military activity across Scotland.¹⁰⁸ They included the requirement for an audit and muster of all veterans of the European wars living in the shires and still able to serve.¹⁰⁹ As noted above, at least 88 Scotsmen had left Dutch and Swedish service in 1637/38 and although it is unlikely that they all returned to Scotland, the audit requirement suggests that

¹⁰³ NRS, GD3/9/5/3/39/1, /5. GD3/9/5/1/9. GD3/9/5/3/3.

¹⁰⁴ HMC, *Manuscripts of the Earl of Eglinton*, pp. 35-36. Fraser, *Memorials of the Montgomeries*, ii, p. 292.

¹⁰⁵ Singleton, *Famous by My Sword*, pp. 14-15. Murdoch, *Terror of the Seas*, p. 192.

¹⁰⁶ Gardiner, *Fall of the Monarchy*, i, p. 194. Burton, *History of Scotland*, vi, p. 219.

¹⁰⁷ NRS, GD112/39/65/15. James Grant, *Memoirs and Adventures of Sir John Hepburn*, (Edinburgh 1851), p. 232. Hinds, *CSPV 1636-1639*, xxiv, p. 398. Grosjean, Murdoch, *Scottish Generals*, p. 95. *CSPD 1637-1638*, p. 529.

¹⁰⁸ Laing, *Baillie*, i, p. 103, p. 410.

¹⁰⁹ Innes, *Black Book of Taymouth*, pp. 391-392.

some had done so. There is clear evidence of mustering and arming in Aberdeen, Argyllshire, Dumbarton, Edinburgh, Glasgow, Pittenweem and Stirling in July and August 1638.¹¹⁰ Drill masters were hired in burghs and shires during the summer and autumn to train the fencibles and other drill masters toured the country, with such training continuing well into 1639, which will be examined in Chapter 3.¹¹¹ Modern weapons, necessary for training, were imported from Europe on a large scale beginning as early as June 1638.¹¹² Given that the recall of veterans from Europe had yet to take place when this spike in military activity occurred, this is clear evidence of veterans already being in Scotland and being employed across the kingdom as drill masters, in addition to other roles as discussed below. The impetus for the spike in military activity in mid-1638 must, at least in part, be credited to the influence of veterans who returned to Scotland in 1638 or earlier.¹¹³

Compliance with the instructions from the Tables to audit fencibles, veterans and weapons necessitated meetings of the nobility, gentry and burgh representatives in the shires, although surviving records are few. Such meetings were held in Perth on 17 July, in Fife in July, and in Argyll on 2 August. In Perthshire all veterans who were ‘able to doe any seruice in warres’ were instructed to assemble in Perth on 26 July 1638.¹¹⁴ Sir David Home of Wedderburn was a veteran of French service, commanded Covenanter regiments, was a repeat member of the Berwickshire committee of war and represented that shire in Parliament for most of the period 1639-50: it is unlikely that he was a passive observer in 1638/39.¹¹⁵ The records for 1639 are lacking, but the same may be said for Sir Patrick Mackie of Larg, who had served with Colonel Robert Monro in Germany. He represented Kirkcudbright in Parliament, was the presiding officer of the shire committee of war in 1640, commanded cavalry in 1640/41 and again in the ASL&C.¹¹⁶ By the end of 1638 the Tables had ordered that veterans should ‘be diuyled equallie amongst the presbyteries of the shire’ to act as ‘drill maisters’ to implement the cascade training described in Chapter 3.¹¹⁷ The evidence makes clear that each shire’s veterans were involved in their shires’ activities, commensurate with their rank or social status.

¹¹⁰ Stuart, *Burgh of Aberdeen 1625-1642*, p. 133. Innes, *Black Book of Taymouth*, pp. 398-404. *Dumbarton Burgh Records*, p. 55. Wood, *Burgh of Edinburgh 1626-1641*, pp. 204-205. Marwick, *Burgh of Glasgow, i*, p. 391. David Cook, *Annals of Pittenweem*, (Anstruther 1867), p. 27. WB Cook, David Morris, *The Stirling Guildry Book*, (Stirling 1916), p. 55.

¹¹¹ Marwick, *Burgh of Glasgow, i*, p. 391, p. 483. *Dumbarton Burgh Records*, pp. 56-57. Innes, *Black Book of Taymouth*, p. 396. HMC, *Manuscripts of the Duke of Hamilton*, (London 1887), p. 96. Wood, *Burgh of Edinburgh 1626-1641*, p. 211, p. 215. Stuart, *Burgh of Aberdeen 1625-1642*, pp. 140-141. William Knowler, *The Earl of Strafforde’s Letters*, (London 1739), ii, p. 271. CSPD 1638-1639, pp. 409-410.

¹¹² Elinor Joan Courthope, *The Journal of Thomas Cunningham of Campvere, 1640-1654*, (Edinburgh 1928), pp. 53-54. S. R. Gardner, *The Hamilton Papers*, (Westminster 1880), p. 17.

¹¹³ Inter alia. SSNE Database. McMaster, Wood, HMC, *Supplementary report on the Manuscripts of His Grace the Duke of Hamilton*, (London 1932), p. 49. Furgol, *Regimental History*, p. 29, p. 31.

¹¹⁴ William Fraser, *The Sutherland Book*, (Edinburgh 1892), ii, pp. 169-70. Innes, *Black Book of Taymouth*, p. 391. NLS, Adv.MS.29.2.8. NRS, GD112/1/516.

¹¹⁵ Furgol, *Regimental History*, p. 74, p. 166, p. 352. RPS, 1643/6/91, 1644/6/225. Joseph Foster, *Members of Parliament of Scotland 1357-1882*, (London 1882), p. 181.

¹¹⁶ Monro, *Expedition*, p. 92. Nicholson, *Minute Book*, p. 1. Furgol, *Regimental History*, p. 146. RPS, 1643/6/91, 1644/6/225. Foster, *Members of Parliament*, p. 233.

¹¹⁷ NRS, GD16/52/19, PA7/2.

Command

This section will consider the extent to which the Covenanters appointed European veterans as their generals. This will include those commissioned immediately and those who progressed through the ranks over time. A third group consists of generals who were not European veterans. Table 1.3 shows Covenanter generals and the years when they held their commands are indicated by shading.

Years in Which Covenanter Officers Held General Officer Rank – service in other ranks not shown.													
General Officer	1639	1640	1641	1642	1643	1644	1645	1646	1647	1648	1649	1650	1651
Earl/marquis of Argyll													
Leslie/Leven													
William Baillie													
Alexander Hamilton													
6th earl Marischal													
1st marquis of Montrose													
Robert Monro													
Almond/Callendar													
John Leslie													
2nd earl of Haddington													
3rd earl of Lothian													
David Leslie													
James Lumsden													
Robert Lumsden													
James Ramsay													
2nd Lord Burleigh													
Lord Elcho													
John Middleton													
James Holborn													
Lawrence Crawford													
John Urry													
Jonas Van Druschke													
1st Duke of Hamilton													
James Turner													
George Monro													
James Wemyss													
John Brown													
Robert Montgomery													
Colin Pitscottie													
John Hamilton													
Thomas Dalzell													
Edward Massey													

Table 1.3¹¹⁸

¹¹⁸ SSNE Database, passim. Furgol, *Regimental History*, passim. CSPD 1637, p. 442, 1637-1638, p. 83. NLS, *Acc.8468/69*. Steven Roberts, *The Cromwell Association Online Directory of Parliamentary Army Officers*, 2017: Holborn. Fraser, *Earls of Haddington*, i, p. 196, ii pp. 184-185. NRS GD16/52/19. Laing, *Baillie*, i, p. 195. William Fraser, *The Melvilles*, (Edinburgh 1890), iii, pp. 162-164. RPS, 1644/1/125, 1644/1/127, 1645/1/91, 1648/3/138, 1648/3/239, 1648/3/240, 1649/5/215, M1650/5/35, 1649/5/220, A1650/5/54, A1651/3/24, M1651/5/19. Turner, *Memoirs*, p. 61, p. 242. Stevenson, *Scottish Covenanters and Irish Confederates*, p. 261. DNB, *Argyll, Baillie, Burleigh, Callendar, Haddington, Lothian, Lumsden, Marischal, Middleton, George Monro, Robert Monro, Montrose, Montgomery, Turner, Wemyss*. NRS, GD112/39/93/5. Balfour James, *Historical Works*, (Edinburgh 1824), iii, p. 434, iv, p. 297. David Stevenson, *The Government of Scotland under the Covenanters 1637-1651*, (Edinburgh 1982). Terry, *Papers Relating*, ii, p. 527.

The Covenanters' first choice generals (excluding the administrative roles of adjutant, quartermaster and commissary generals) for the field armies were veterans, with a core consisting of Alexander Leslie (later earl of Leven), James Livingston (Lord Almond later earl of Callendar), William Baillie, Alexander Hamilton, David Leslie, John Leslie, James Lumsden, Robert Lumsden, Robert Monro and James Ramsay. These (with the addition of the non-veteran Argyll) were the key commanders from 1639 to 1647. This is caveated by the facts that during the First Bishops' War Almond and John Leslie were absent, Monro was a Colonel and that David Leslie did not return until 1643. Equally important was the continuity provided between 1644 and 1647 throughout which time a core of 10 veterans (to which may be added Middleton and Holborn from 1645) held the various ranks of general. Each of these 12 had served in at least one state's army, encompassing England (1), Denmark (2), Holland (4), France (4), Russia (1) Saxe-Weimar (1) and Sweden (8). Holborn's record is unclear, but he probably served in Holland and is included in that figure. Argyll, Robert Balfour, 2nd Lord Burleigh, David Wemyss, Lord Elcho, Thomas Hamilton, 2nd earl of Haddington, William Keith, 6th earl Marischal and James Graham, 1st marquis of Montrose were not veterans, but with the exceptions of Argyll and Montrose their periods in command were very short. The Covenanters benefitted from the relative ease with which these generals worked together, possibly because so many were professional soldiers rather than competing noblemen. That is not to say that there were no issues with egos, personal animosity and loyalties, but they functioned without the levels of friction seen in the Royalist armies or in the English Parliamentary armies before the NMA was created.¹¹⁹

This group conforms to the 1639 policy that command should be held by a nobleman or gentleman, but with some exceptions they were clearly selected because they were veterans, not because of their social status and landholdings. The policy, which made no mention of generals, also recommended that (amongst other rank combinations) a non-veteran colonel should be supported by a veteran lieutenant colonel. In practice this was also applied at army level when Montrose commanded the first expedition into the north in March 1639, with Leslie as his advisor. While other noblemen (such as Argyll) were given commands, usually based on their landholdings and social standing and authority rather than their experience, from 1639 the majority of generals were veterans, meaning that they were selected primarily on merit. The Covenanters' were pragmatic not just in the selection in 1639 of Leslie as Lord General, but in the selection of almost all their veteran generals, as will be shown. Veterans were prioritised over less experienced nobles or placemen because of their knowledge and experience, although that clearly does not preclude the influence of patronage in all circumstances.

¹¹⁹ Inter alia. Donagan, *War in England*, p. 245. Carpenter, *Military Leadership*, p. 134. Young, *Cavalier Army*, p. 135. Braddick, *Oxford Handbook*, p. 229.

The stability that this group represented was significantly weakened by the Engagement and its aftermath as many generals refused to serve (see Table 1.3). Baillie, Callendar and Middleton participated in the invasion of England in which they were joined by the newly promoted generals George Monro and James Turner. Weak leadership on the Duke of Hamilton's part exacerbated the poor relationships and friction in the Engagers' command group, particularly between Callendar, Baillie and George Monro. When Monro met with Hamilton in Kendal, he was ordered to return to his men and remain with them at Kirby-Lumsdale, which Turner said put him a day's march away on the day of the Battle of Preston.¹²⁰ As a result, 'for all practical purposes Monro [and his veteran troops] might as well have remained in Ireland' wrote Gardiner.¹²¹ Alexander Hamilton and Robert Monro supported the Engagement, but they remained in Scotland and Ireland respectively. Following the Engagement, these men variously faced exile, imprisonment, disbarment from military service (and in Alexander Hamilton's case death from natural causes), although there was later a route back through penitence when the Act of Classes was repealed.¹²² 1649/50 saw the return of Leven (his request to retire refused), Leslie, James Lumsden and Holborn and the commissioning of new generals in the shape of James Wemyss, and Robert Montgomery. Wemyss's promotion illustrates a career-like progression since 1639 when he had been the Master Gunner of England, but Montgomery is of particular interest for he was not a veteran of the European wars. He first appeared in the military record as a cavalry lieutenant colonel in 1643 and was commissioned as a major general in 1649. His career provides evidence that veteran leaders developed over the course of the civil wars, as an alternative source of leaders. His case could also suggest that progression could be primarily based on merit, although as a son of the earl of Eglinton, perhaps not wholly so. In this the Covenanters reflected what happened in the English Parliamentary forces, but it happened automatically, without the need for a catalyst like the Self-Denying Ordinance of April 1645. It took that English legislation to 'put aside private interests for the public good' making merit a factor in English Parliamentary officer selection.¹²³

After Dunbar the core of generals remained, with only James Lumsden having been captured, although John Leslie and Robert Lumsden left the field army to become governors of the key burghs of Burntisland and Dundee respectively. John Brown, Thomas Dalrymple, John Hamilton and Colin Pittcottie were, however, newly commissioned as major generals for the 1651 campaigns. Brown and Pittcottie were European veterans and career soldiers, but Dalrymple, like Montgomery, had only the experience of the civil wars. It is unclear if John Hamilton had European experience, but he had certainly served in the ASL&C and had had to repent for his involvement in the Engagement. Middleton and Turner were also

¹²⁰ Burnet, *Dukes of Hamilton*, p. 453. Stevenson, *Revolution and Counter-Revolution*, p. 94. Turner, *Memoirs*, p. 68.

¹²¹ Gardiner, *Civil War*, iv, p. 181. Scott, *Politics and War*, p. 179.

¹²² RPS, A1651/5/7.

¹²³ Gentles, *New Model Army*, pp. 6-15.

rehabilitated by the Kirk and re-employed although Turner was in a staff role as Adjutant General of the infantry. Edward Massey and Jonas Van Druschke, an Englishman and a Dutchman, were also commissioned major-generals. Massey was a European veteran and had served in the Royalist armies in the Bishops Wars and Parliamentary armies thereafter. He reached the rank of major general before political troubles forced him into exile and later into contact with Charles II. Van Druschke is likely to have had experience in the European wars, but there is no evidence of it. He served in the English Parliament's forces and in the ASL&C reaching major general by 1646. That seven (three of whom were not Scottish) out of the 26 men commissioned as generals between 1639 and 1651 were recruited from outside the Covenanter military establishment indicates selections for commissions based, at least in part, on veteran status. This is particularly so in Urry's case: he turned his coat three times and was therefore hardly commissioned for his reliability. This is further evidence that the Covenanters were prepared to select commanders based on their talent and experience rather than their social status or patrons.

Securing Scotland 1639

The window when veterans who had been recalled from Europe could have had the greatest impact in generating military capability was during the first six months of 1639. An analysis of how Scotland was secured is necessary, to identify any factors other than recalled veterans which influenced the outcome. In 1639 Alexander Leslie's experience of command at the highest level allowed him to offer effective advice to the Tables and then the Estates which was clearly to the Covenanter forces' benefit. The first veteran input to the plans for the defence of Scotland in 1639, however, came not from recalled veterans, but from the men involved in the counter invasion planning in the 1620s, a connection which is not analysed in the existing scholarship of this period. When Charles I declared war on Spain in 1625 (Anglo-Spanish War, 1625-1630) one consequence was that England, Scotland and Ireland were threatened with invasion by Spanish forces and preparations were made to meet such a contingency.¹²⁴

The first such planning in Scotland was conducted in 1625 when Colonel Andrew Gray (a veteran of European service) was tasked by the Privy Council to conduct a survey of 'all the seaports [...] to advise and consider of the most convenient places whairupoun to raise bulwarkis and blokhoussis for the best defence of the same'.¹²⁵ In November 1625 a proposal was made to the king and parliament to for raising '2,000 men with shipping for the space of three years, to the intent they might be ever in readiness as well for pursuit as defence'.¹²⁶ This was an unrealised proposal for a small standing army which demonstrates well developed military thinking rather than a dearth of military knowledge. This was

¹²⁴ *CSPD 1625-1626*, p. 297, *CSPD 1625-1649*, p. 55. Dupuy and Dupuy, *Collins Encyclopaedia of Military History*, (New York 1993), p. 601.

¹²⁵ *RPCS 1619-22*, p. 273. *RPCS 1625-1627*, pp. 158-159

¹²⁶ *RPS, A1625/10/8*.

followed in 1626 by the creation of the Council of War (based on the English equivalent), whose 17 members were men with ‘knowledge and experience in militarie matteris’: at least 9 of them were veterans of European service.¹²⁷ Building on this, in 1627, men such as John Lyon, 2nd earl of Kinghorne, John Leslie, 6th earl of Rothes and William, 2nd Lord Ramsay of Dalhousie (later 1st earl of Dalhousie), 2nd Lord Burleigh, Sir John Scot of Scotstarvet and Sir Alexander Erskine were variously tasked by the Privy Council to organise wappenschaws, re-assess the requirement for fortifying coastal burghs and to review and refurbish the beacon alerting system in their shires. Except for Sir John Scot, who was a member of the Committee of Estates in 1640, these men all commanded regiments during the Bishops’ Wars and would therefore have been able to advise based on this previous experience. A total of 17 lairds were nominated to assist them, at least six of whom (Morphie, Bonytoun, Balmaine, Leyes, Wemyss and Hamilton of Blackburn) were subsequently members of shire committees or shire colonels, thus also providing a degree of continuity.¹²⁸

Notably, the coastal defence priorities during the counter-invasion planning of 1627 (the west coast, Leith, Montrose, Burntisland, Firth of Forth, Dumbarton castle, Firth of Clyde), were practically identical to those of 1639 and 1640.¹²⁹ So too were the measures taken to prepare them for defence: for example, the 1627 plan for Burntisland’s defences included ‘ane fort upoun the hill above the toun’ which was known as the ‘fort on West Broomhil’ in the Bishops’ Wars.¹³⁰ Additionally, at least some of the beacons were already operational by July 1638 when Robert Ker, 1st earl of Roxburghe wrote to the marquis of Hamilton telling him that ‘hardly could we keip them frome putting up bonefyres upon the beakones’.¹³¹ The king’s initial intention to land one force on the west coast, a second in the northeast and to advance through the eastern Borders with his main army, was entirely predictable.¹³² Spies and sympathisers at court had little difficulty in confirming the king’s plan, resulting in the Covenanter’s plan precisely countering the king’s.¹³³ Although other veterans were involved in planning and preparing these defensive measures (Alexander Hamilton designed the defences of Leith ‘acording to the moderne fashione’ for example), the defensive preparations in 1638/39 were a clear example of continuity, building on the experience of the 1620s.¹³⁴ This linkage between the two decades adds a new aspect to the understanding of where the knowledge and experience came from which allowed the Covenanters to prepare for the First Bishops’ War.

¹²⁷ *RPCS 1625-1627*, p. 169, pp. 337-338.

¹²⁸ *RPCS 1627-1628*, pp. 53-54, pp. 90-92. *RPS, 1643/6/91*.

¹²⁹ *CSPD 1627-28*, pp. 52-54, p. 65, p. 70, p. 133, pp. 149-150.

¹³⁰ Andrew Young, *History of Burntisland*, (Kirkaldy 1913), p. 97.

¹³¹ *NRS, GD406/1/10669*.

¹³² Hardwicke, *Miscellaneous State Papers*, ii, pp. 118-120. Burnet, *Dukes of Hamilton*, p. 132. *CSPD 1638-1639*, pp. 323-324. Gardner, *Hamilton Papers*, pp. 14-17. Knowler, *Strafforde’s Letters*, ii, pp. 318-319.

¹³³ *CSPD 1939*, pp. 14-15, pp. 66-67, p. 179. Laing, *Baillie*, i, p. 195.

¹³⁴ Gordon, *Scots Affairs*, ii, pp. 207-208.

The implementation of the plan to secure and defend Scotland in 1639 was both sophisticated and ambitious. Leslie ‘established a council of war’ described by Spalding as ‘consisting of nobles, colonels, captains, and other wise and expert persons’. This must have included Baillie, Hamilton and Monro who were certainly involved in the execution. It would have been remarkable had other available veterans not also been involved.¹³⁵ The plan was to seize, in rapid succession, the key points in Scotland which were not already under their control. In a series of actions between 20 and 30 March 1639 Covenanter forces, led by veterans and non-veterans alike, seized control of most of lowland Scotland. Three royal fortresses (Edinburgh, Blackness and Dumbarton) were captured with the fourth (Stirling) already in Covenanter hands. The key Royalist leaders in the south (Robert Maxwell, 1st earl of Nithsdale, John Stewart, 1st earl of Traquair and William Douglas, 1st marquis of Douglas) were forced to flee to England. Dalkeith House was taken along with the Honours of Scotland, as were Douglas’ castles of Douglas and Tantallon although Nithsdale’s castles of Caerlaverock and Threave held out. Argyll himself led the capture of Arran, including the Hamilton castle at Brodick, while other Campbell forces occupied Kintyre and Mull to picket the west coast against surprise attack. The largest of the forces levied until that date, commanded by Montrose (although advised by Leslie) marched into Aberdeen and secured the burgh. Across the kingdom arms were seized from Royalists.¹³⁶ The degree of planning and coordination required to conduct these operations, the use of surprise and tempo both to increase the chances of success and to exploit the psychological effect of such rapid attacks, demonstrates a professionalism which strongly suggests the involvement of veterans. This must be caveated by the fact that these were, for the most part, small scale operations, both in terms of resources and duration, carried out in most cases by consenting men. As such, they were more manageable by less experienced men and while the likes of Leslie and Monro were undoubtedly involved, so too were veterans long returned and non-veterans alike: success did not stem from the efforts of recently returned officers alone.

Veterans as a Vector for Swedish Influence

The historiography identifies the veterans returning from Swedish service as the primary vector for the passage of military knowledge, in its widest sense, into Scotland. It describes the veterans as being so effective as a conduit, moreover, that ‘the influence of the Swedish war machine permeated through to every level of Scottish military life’ and that ‘Scotland became a significant military state was owing to the importation of Swedish practices by Scottish officers’.¹³⁷ Yet it is important to note other possible influences given that Scotsmen served in many of the armies of Europe in this period, including Dutch, French, Russian, Swedish and Charles I’s forces. Although the majority did indeed serve with the

¹³⁵ Spalding, *Memorials of the Troubles*, i, p. 130.

¹³⁶ Hope, *Diary of the Public Correspondence*, p. 87. CSPD 1639, p. 4. NRS, GD112/39/68/28. GD112/39/68/20. Spalding, *Memorials of the Troubles*, i, p. 153. Stuart, *Burgh of Aberdeen 1625-1642*, pp. 154-155. Laing, *Baillie*, i, p. 196.

¹³⁷ Grosjean, *Unofficial Alliance*, p. 188. Furgol in *Scottish National Covenant*, p. 148.

Swedes, there was a great deal of commonality across European armies in terms of tactics, training and military publications, including articles of war. The apparent adoption of some Swedish practices could have actually been the adoption of common European practice. Whether or not there was a 'military revolution' in Europe in the seventeenth century, there were significant developments in tactics, equipment and organisation in the 50 years before the First Bishops' War.¹³⁸ Innovations begun with the Dutch were then developed by the Swedes, but that does not mean that change was confined to those countries.

An examination of the body of new and updated military works published in Europe in the early seventeenth century demonstrates the spread of new ideas. Maurice Cockle lists over 300 such texts published between 1600 and 1657, 94 of which were printed in English, mainly in London although only two (Achesone and Kellie) in Edinburgh.¹³⁹ Some were simple translations, others were original works, but more importantly, as Sir Charles Oman put it in the Introduction to Cockle's book, they were 'echoes from the great wars of the continent'.¹⁴⁰ This was certainly the case with Monro's *Expedition* printed in London in 1637. Such manuals were undoubtedly in circulation in Scotland. From 1633, for example, all new burgesses in Glasgow were obliged to purchase *The Military Garden* supplied in bulk to the burgh by 'James Aitchisoun, dreilmaister' who trained the Edinburgh militia in 1628-1629 and 1630-1633.¹⁴¹ *The Military Garden* clearly reflects contemporary practice in Europe at the date of its publication. In 1638 the Tables engaged James Bryson to publish a drill book which contained only the most basic drills, which the shires were subsequently directed to use for their training.¹⁴² Scottish veterans, whether commanders or drillmasters, would certainly have used the drills or tactics with which they were most familiar making some Swedish influence, either directly or indirectly, a certainty. That could, however, have represented the adoption of European mainstream practice, not necessarily the conscious adoption of Swedish methodologies.

One specific Swedish influence was seen in the adoption in 1639 of an edited version of the Swedish Articles of War, rather than the Dutch or English Royalist equivalents.¹⁴³ Gordon stated that Leslie, 'with advyce and consent of the Tables, had caused draw upp' the Articles.¹⁴⁴ Articles of War

¹³⁸ Inter alia. Roberts Michael, *Essays in Swedish History*, (Minneapolis 1967), pp. 195-225. Parker, *Military Revolution*, pp. 195-214. Lynn John, *Tactical Evolution in the French Army 1560-1660*, French Historical Studies, Autumn, 1985, pp. 176-191. Black, *A Military Revolution?*, pp. 1-20.

¹³⁹ Maurice Cockle, *A Bibliography of English Military Books up to 1642 and of Contemporary Foreign Works*, (London 1900).

¹⁴⁰ Cockle, *Military Books*, p. viii.

¹⁴¹ Marwick, *Burgh of Glasgow* ii, p. 15. James Achesone, *The Military Garden*, (Edinburgh 1629). Wood, Burgh of Edinburgh 1626-1641, p. 41, p. 58, p. 63, pp. 131-132.

¹⁴² *The Rudiments of Military Discipline*, (Edinburgh 1638). NRS, GD16/52/19, PA7/2.

¹⁴³ *Articles of Militarie Discipline*, (Edinburgh, 1639).

¹⁴⁴ Gordon, *Scots Affairs*, ii, p. 252.

were not an abstract requirement, but a very real one: in wartime there were offences, including capital crimes, such as desertion, which simply did not exist until they were created in law. Equally, officers required a legal right to issue and enforce orders given to subordinates. The 1639 Articles were a version of the Swedish document (published in English in 1632), with which Leslie and other veterans would certainly have been familiar.¹⁴⁵ However, the 1640 Articles were much less Swedish: some 75% of the 1639 articles were deleted or very heavily edited in the 1640 iteration.¹⁴⁶ While death for cowardice remained an article, it was complemented by one which promised ‘Rewards for the wel-deserving’ soldier who did his ‘part valiantly, in Battell or fight’. With no Royal or Swedish equivalent, this was a Covenanter article which tempered the coercive approach with one more likely to influence consenting and compliant troops. In a further dilution of Swedish content, seven articles were clearly influenced by the 1638 and 1639 Royalist Articles of war. One of these drew on both Royal documents, threatening any captain who failed to train his company properly with dismissal.¹⁴⁷ In this instance, the Covenanters drew on the veterans’ knowledge to produce a working solution in 1639 based on Swedish practice, but they were flexible and practical enough to produce a more suitable British/Swedish hybrid the following year.

There is little evidence of the adoption of Swedish tactics on the battlefield during the Bishops’ Wars, because engagements such as Kelso, Megray Hill, Bridge of Dee and Newburn were all very limited in scale and therefore offer few tactical insights. Exploiting firepower to enable manoeuvre, however, lay at the heart of the Swedish system and this was clearly the tactical philosophy adopted by the Covenanters. Regiments across Europe in this period usually deployed in three blocks in one line: pikemen in the centre and musketeers on each flank.¹⁴⁸ The musketeers’ firepower in this formation was increased by deploying 3-pounder guns (usually known as regimental guns) either on the flanks or between the blocks. While there is no clear evidence of this formation being adopted in battle, it exactly fits the description of a review of the ‘Scots armie’ by the king given in a contemporary account of 1641 and it is shown in Payne Fisher’s contemporary Plan of the Battle of Dunbar in 1650.¹⁴⁹ The deployment of infantry regiments in this way is less Swedish than European, as the Swedes had implemented a more complicated brigade formation, only adopting the simpler and more common three blocks from 1634.¹⁵⁰ Monro still favoured the original Swedish formation, a detailed description of which he included in his 1637 book *Expedition*, although he had no opportunity use it in either Scotland or Ireland.¹⁵¹

¹⁴⁵ *The Swedish Discipline, Religious, Civile, and Military*, (London 1632).

¹⁴⁶ NRS, GD215/1901.

¹⁴⁷ *Lawes and Orders of Warre*, (Dublin 1638). *Lawes and Ordinances of Warre*, (Newcastle 1639).

¹⁴⁸ Monro, *Expedition*, pp. 187-192.

¹⁴⁹ *His Maiesties passing through the Scots armie*, (Edinburgh (?) 1641), p. 4. Firth, *Battle of Dunbar*, pp. 19-52.

¹⁵⁰ Inter alia. Young, Holmes, *English Civil War*, p. 47. Keith Roberts, *Pike and Shot Tactics 1590-1660*, (Oxford 2010), pp. 32-42, pp. 46-55. Theodore Dodge, *Gustavus Adolphus*, (Boston 1895), i, pp. 255-256. Walter Harte, *History of Gustavus Adolphus*, (London 1759), i, pp. 390-391. Peter Wilson, *Lutzen*, (Oxford 2018), pp. 59-61.

¹⁵¹ Monro, *Expedition*, pp. 288-289.

William Barriffe's comprehensive 1635 drill book did not include the Swedish brigade formation, but the 1639 edition, printed in London, included (and credited) Monro's description, demonstrating that it was of contemporary interest on the eve of war.¹⁵² Covenanter infantry also used lightweight 3-pounder guns and short stakes spiked at both ends for defence against cavalry. Amongst other names, these were known as Swedish guns and Swedish feathers, but despite that they were both widely used across Europe, including by Royalist and Parliamentary forces.¹⁵³ Their use was as likely to be an indication of wider European influence as much as Swedish influence and this will be examined in Chapter 4. Barriffe's addition of the Swedish brigade formation to his book is evidence that what would have originally had to have been a direct Swedish influence was becoming indirect and that adoption of a 'Swedish' tactic could simply have been adopting European best practise or even a personal preference. Whether direct or indirect, there was clearly some Swedish influence in the tactics and organisation of the Covenanters' forces in the Bishops' Wars and one of the primary vectors for that influence must have been the veterans of European service.

Training

Training will be considered in detail in Chapter 3. This section will consider the importance of veterans in the delivery of training. Veterans were intended to take the lead from the outset and as shown above, the instructions issued by the Tables in late 1638 stated this explicitly. They recommended a cascade system for the infantry to be organised by each shire committee of war. Veterans were to train 'tua capaball gentilmen' from each parish and 'tua or three out of every brugh' who, once trained, were then to return home to train their neighbours. The stated training priority in 1639 was making sure that men could use their individual weapons and carry out the most basic manoeuvres in small groups. There was also a stated requirement to train artillerymen, but no detail was given for such training and no mention was made at all of cavalry. Also explicitly stated was the requirement for training to be standardised wherever it was conducted, hence the adoption of the Bryson text.¹⁵⁴ Although the text is not mentioned, Argyll had implemented such cascade training by April 1639, led by a drillmaster in Inveraray.¹⁵⁵ This training solution maximised the skillsets of veterans of the rank of captain and below: training was made an explicit part of their roles in regiments in the 1640 Articles, as noted above.¹⁵⁶

A limitation of the system was that the dispersion of the fencible population meant that opportunities to train above company level would have been few and would have needed veterans of at

¹⁵² William Barriffe, *Military Discipline*, (London 1639), pp. 367-371.

¹⁵³ Knowler, *Strafforde's Letters*, ii, p. 271. CSPD 1640, p. 629. JHC, iii, p. 277. George Wither, *Mercurius Rusticus*, London, 26 October 1643, p. 6. Young, Holmes, *English Civil War*, p. 334. Laing, *Baillie*, ii, p. 441. Hodgson, *John Aston*, p. 29.

¹⁵⁴ NRS, GD16/52/19, PA/7. *Rudiments of Military Discipline*.

¹⁵⁵ NRS, GD112/39/69/5.

¹⁵⁶ *Articles*, Bryson, 1640.

least major or lieutenant colonel rank to conduct it. There is evidence of training teams travelling the kingdom between 1638 and 1640, ‘calling all the Inhabitants of two or three towns together’ to conduct training, which certainly implies training with more than one company, although it must have taken time to build up to regimental level.¹⁵⁷ Training continued over the winter of 1639/40, conducted by veterans who were retained in service for that purpose. Five of the known groups of such veterans included lieutenant colonels or majors who would have been able to conduct regimental training exercises. They would undoubtedly also have mentored the shires’ majors and colonels of both cavalry and infantry; indeed, it is reasonable to assume that mentoring had been happening throughout.¹⁵⁸

Artillery training must also have taken place but given the absence of records it can only be judged by its output which allowed artillery trains of 40-50 guns in 1639 and over 60 in 1640 to be fielded, not including guns deployed with forces other than the main army. When the king inspected the Scots Army at Newcastle in August 1641, the artillery fired a salute in his honour. The gunners ‘gave such true fyre as it is beleaved since the invention of gunnes never better was seene or heard, they discharged wondrous swift but with as good a method and order as your skilfullest Ringers observe with Bels’.¹⁵⁹ Even allowing for the clear bias of the broadsheet’s author and that this was a display not a battle, the gunners appear to have been at least competent in carrying out their basic skills. Any such training for artillerymen would have involved veterans not just from European service, but from amongst the gunners employed in the merchant fleet and coastal burghs and ports such as Aberdeen or Leith. Most of the artillery officers who were employed full time from early 1640 onwards were probably found from the same community.¹⁶⁰ Others though, came from Europe: the ‘two cheif cannoneirs’ of one of the batteries besieging Edinburgh Castle in 1640 had been ‘brought from beyond [the] seas’.¹⁶¹ Whatever the challenges, men were trained well enough to accomplish the tasks set for them, and the contribution of veterans was an essential part of generating military capability.

Consent Coercion And Compliance

Covenanter armies contained volunteers who consented to serve, men who did not volunteer but were prepared to serve when required to and men who had to be coerced into service. An essential part the army was its consenting core: the men who would stay with their colours and stand their ground in battle.

¹⁵⁷ John Robertson, *Selections from the Registers of the Presbytery of Lanark 1623-1709*, (Edinburgh 1839), p. 20. Knowler, *Strafforde’s Letters*, ii, p. 271.

¹⁵⁸ Fraser, *Memorials of the Montgomeries*, ii, pp. 292-293. Fraser, *Annandale Family Book*, i, pp. 187-188. Nicholson *Minute Book*, p. 7. Stevenson, *Presbytrie Booke of Kirkcaldie*, p. 178, p. 179. Stuart, *Burgh of Aberdeen 1625-1642*, pp. 193-195.

¹⁵⁹ *His Maiesties passing through the Scots Armie*, p. 4.

¹⁶⁰ Laing, *Baillie*, i, p. 211. CSPD 1639, pp. 189-190, p. 233. CSPD 1640, p. 615, p. 629. *Extracts from the Accounts of the Burgh of Aberdeen, Miscellany of the Spalding Club Volume Fifth*, (Aberdeen 1852), p. 155. Stuart, *Burgh of Aberdeen 1625-1642*, p. 169, p. 215. John Imrie, John Dunbar, *Accounts of the Masters of Works 1616-1649*, (Edinburgh 1982), ii, pp. 386-388. Spalding, *Memorials of the Troubles*, ii, p. 489.

¹⁶¹ James Somerville, *Memorie of the Somervilles*, (Edinburgh 1815), ii, p. 233.

This core consisted initially of the European veterans and non-veteran volunteers, but later in the period it included what Stevenson described as a growing ‘class of semi-mercenary soldiers’.¹⁶² Veterans were a key part of any army who, being used to life on campaign, would remain motivated in spite of routine hardship. As leaders, they would have been able to encourage the inexperienced volunteers and the compliant majority and to a certain extent force the coerced men to stay the course. The presence of veterans, therefore, does much to explain how the succession of armies stayed in the field rather than disintegrating. The examples of the Fife levies at Kilsyth which were described by General Baillie as ‘in the flight’ even before being engaged and the disintegration of the levies of Lanarkshire, Ayr and Renfrew in that battle’s aftermath may in large part be attributed to the lack of veterans in their ranks.¹⁶³ This is not a retrospectively imposed interpretation: it was clearly understood at the time. The aspiration before the First Bishops’ War to have veterans in key appointments in regiments, whether or not it was achieved, is a clear indication of such an understanding. In 1650 Lieutenant General David Leslie submitted a paper to parliament arguing against raising new regiments and instead advocating using new recruits to rebuild veteran regiments. This, he stated, was because ‘a mixture [was] better than to keep the new entirely by themselves’.¹⁶⁴ Veterans and volunteers, the former certainly in leadership positions and the latter likely to be, whether sooner or later, provided a key part of Covenanter military capability as the consenting core of the army.

Conclusion

Hundreds of veterans, not thousands, returned in time for the Bishops’ Wars, but many were too late to participate in the First War and the preparations for it. Given that the period when recalled veterans could have had a transformative impact was during the Bishops’ Wars and particularly in early 1639, the breadth and depth to which their influence could have penetrated society must necessarily have been limited in 1638/39. Some senior veterans, however, such as Leslie, Hamilton and Monro exerted a significant influence on the course of events. Leslie’s reputation and the respect which he commanded did much to mitigate friction amongst the leadership group, at least initially. As Chapter 6 will show, Hamilton was an excellent artilleryman and engineer, not only shaping Covenanter tactics but designing and making the guns required to implement them. Monro had Leslie’s confidence and sufficient experience to be trusted with independent commands which, although limited in 1639, were significant in 1640 and in Ireland from 1642¹⁶⁵.

¹⁶² Stevenson, *Revolution and Counter-revolution*, p. 152.

¹⁶³ Laing, *Baillie*, ii, p. 422. NRS, GD3/5/359.

¹⁶⁴ RPS, A1650/5/108.

¹⁶⁵ HMC, *Manuscripts of the Duke of Hamilton*, p. 93.

Recalled veterans were also not the only veterans active in Scotland: other veterans of European service had returned in and before 1638. There were also men who had been involved in the military preparations designed to counter the Spanish invasion threat in the mid-1620s. Gunners too were already in Scotland, most of whom were to be found in the coastal burghs and merchant fleet. Meaningful military preparation for mobilisation began in the middle of 1638, well before any veterans were recalled from abroad. Leslie, Monro and Hamilton were all in Scotland at that time, albeit that Leslie at least would have to return to Sweden to seek his release from service, before a permanent return was possible. The role of veterans who were already in Scotland was therefore significantly more important than has previously been thought. They provided the military acumen to initiate and sustain action until additional veterans returned to contribute. This also meant that most activities were not initiated using Swedish models, but Scottish ones, such as re-using the 1627 counter-invasion planning. There were simply not enough veterans on hand early enough to conjure an army out of nothing. They were dependent upon continuity to have an effect rather than being the harbingers of radical change. This was not an elite who oversaw a highly efficient military machine, but a group of talented and experienced men who made the most of limited resources.

Chapter 2 - Recruiting and Mobilisation

Introduction

As discussed in the Introduction, there are two key elements in the current understanding of the Covenanters' mobilisation system. Firstly, that they adopted the Swedish mobilisation methodology and secondly that it was a highly efficient system at the heart of which were the hard working and capable shire committees of war. The argument for the former is that the knowledge brought back by recalled veterans, amounted to, as Macinnes put it, 'the direct importation of the Swedish version of the military revolution'.¹ For the latter the evidence which is offered is the fact that, in Furgol's words, 'between 1639 and 1651 the Covenanters raised over a dozen armies which ranged in size from 2,000 men to 24,000 men'.² This chapter demonstrates that the Covenanter system was actually a modernisation of traditional Scottish methodology, although there were undoubtedly influences from Europe and also from closer to home in England and Wales.³ This was to be expected because, as indicated in Chapter 1, there were numerous vectors by which new knowledge and details of best practice reached Scotland before 1639.

It will also show that there was no single system clearly directed from the centre and efficiently implemented in the shires by competent shire committees.⁴ This was because the centre lacked any meaningful means to enforce its will and was reliant on the consent and compliance of the leadership in the shires. The system, such as it was, consisted of local initiatives which unsurprisingly differed from shire to shire and burgh to burgh. Most of the scholarship focuses on the methodology of raising regiments in the shires according to centrally imposed manpower quotas. Furgol, and to a lesser extent Terry, however, describe the raising of units such as the Ministers' and College of Justice Regiments in terms which leave no doubt that they did not conform to such a model. While their work may be interpreted to mean that such exceptions were necessary to augment the mobilisation system, they do not specifically make that argument.⁵ Yet there were so many other ways in which regiments were mobilised that they cannot be considered exceptions, but rather necessary workarounds in an inefficient mobilisation system.⁶ This chapter will also consider the provision of replacements and the manner in which the train of artillery was raised, an analysis lacking in the historiography, which will add to the understanding of

¹ Inter alia. Macinnes in Devine, *Eighteenth Century Scotland*, p. 73. Grosjean, *Unofficial Alliance*, p. 188. Furgol in *Scottish National Covenant*, pp. 138-139. Stewart, *Rethinking the Scottish Revolution*, p. 180.

² Inter alia. Furgol in *Scottish National Covenant*, pp. 138-145. Macinnes in Devine, *Eighteenth Century Scotland*, p. 73. Woolrych, *Britain in Revolution*, p. 119..

³ Inter alia. Rushworth, *Collections 1629-1638*, p. 827. Sydney Dean, *The Frisian Militia System*, *Medieval Warfare*, Jul/Aug 2018, p. 35. H van der Wee, *The Growth of the Antwerp Market and the European Economy*, (The Hague 2013), p. 96. *RPCS 1545-1569*, pp. 39-40, p. 349. *RPCS 1578-1585*, pp. 153-154, p. 524. *RPCS 1599-1604*, p. 525, pp. 838-839. *RPCS 1627-1628*, pp. 50-51.

⁴ Laggan, *Johnston 1639*, p. 52. Atholl, *Atholl and Tullibardine Families*, i, p. 112. RPS, 1644/1/67, 1649/5/388.

⁵ Furgol, *Regimental History*, p. 28, p. 57, p. 170. Terry, *Alexander Leslie*, p. 178.

⁶ Inter alia. NRS, RH15/29/160, GD26/7/158. *RPCS 1638-1643*, pp. 170-171, p. 197, p. 228, p. 501, p. 523. RPS, 1643/6/83. Somerville, *Memorie of the Somervilles*, ii, p. 275, pp. 277-278. JHL, 1645-1647, London, 1767-1830, viii, p. 186

Covenanter mobilisations.⁷ The evidence shows that there was no carefully designed and efficient military machine, but instead an informal system of improvisation and experimentation at all levels.

Sources and Methodology

The surviving records of mobilisation activity provide evidence at all levels from parliament to parish, although there are limitations in both the geographic and temporal coverage. The records are more plentiful for the lowlands than for the highlands, with Argyll and the Campbells the main source for the latter. The bulk of the available evidence and analysis of levying activity necessarily, therefore, focusses on lowland Scotland. This is not a major disadvantage when assessing recruiting and mobilising as a whole, given that the majority of Covenanter forces were levied in the lowlands. Burgh records provide the greatest detail covering most aspects of mobilisation and are supplemented by fewer references in presbytery and parish records, although their evidence is no less important for that. Few records survive for shire committees of war, but direct references to their activity in other sources are plentiful, allowing their importance to be assessed. Financial records, personal diaries, family archives, memoirs, muster records, English Royalist and Parliamentary intelligence reports and foreign ambassadors' reports all provide details to add to the mobilisation picture. The number of such documents varies from mobilisation to mobilisation but despite this, sufficient sources survive to allow a detailed analysis to be conducted across the period 1639 to 1651.

The variety of the available sources allows timelines to be built which begin with the mobilisation requirement set by parliament and which then track activity across Scotland until the army assembled. The level of fidelity which it is possible to achieve in these timelines varies, with that for the ASL&C 1643/44 being the most detailed, but they serve their purpose, nevertheless. Tracking activity in this way allows analysis of the reach of the central authority, the efficiency of the shire committees, the influence of the Kirk, the incentive or coercive measures used to enlist manpower and an assessment of the general success of each mobilisation. A comparison of such factors between 1639 and 1651 demonstrates the level of continuity in the processes used compared to foreign influences and the degree to which the mobilisation process was based on local initiatives rather than being driven by a centralised administration. The effectiveness of the forces raised in this way will be assessed in Chapters 4-6.

⁷ Inter alia NRS, *PA11/1, f 88v*. RPS, 1646/11/306, 1646/11/319, 1646/11/327, 1649/5/215.

Committees Of War

In December 1638/January 1639, the Tables issued instructions ordering the formation of shire committees of war which were adopted across Scotland. This underlines the importance of the Tables' in initiating military preparations and helped to establish them as the legitimate leaders of the Covenanting movement in Scotland, filling the power vacuum which existed in the absence of the Privy Council and Parliament. Although not a requirement in 1639, some of the larger and more populous shires also formed subordinate presbytery committees, each such committee being represented at the higher level by its own commissioners. The membership drew on the nobility, gentry and heritors of the shires as well as representatives from the shires' burghs. During the Bishops' Wars these men were selected locally, but from 1643 they were nominated in Acts of Parliament.⁸ The committees provided the means for the local implementation of direction from the Tables and later Parliament and the Committee of Estates. The central authority seemingly held the whip hand, but it was actually at the mercy of each shire committee's willingness to execute its instructions, not least because although the nomenclature was new, the functionality and basic structure was not. Convening the landholders of the shires for military purposes can be dated to at least 1552 when 'everie Scheref and Bailie within this realme [was instructed to] conveyne the friehalderis of everie Schyir and Bailiarie foresaid, in the heid bruch of the Schyir' to raise troops for service in France.⁹ However, although most service in 1639 was local and brief, the shire committees had thereafter to raise (and to a degree sustain) forces for service outside Scotland for years at a time in the cases of Ireland and the ASL&C. This was in addition to the more traditional task of preparing local forces for emergencies. These were new and challenging requirements which previous versions of shire committees had not had to face.

In 1609 an Act of Parliament created Justices of the Peace in Scotland.¹⁰ They were organised by shire under a convener and were routinely tasked by the Privy Council with tasks as diverse as monitoring the price of cattle and wool to producing lists of the fencible population and of idle and masterless men, the latter being the target population for conscription for European service. The Privy Council ordered that traditional kingdom-wide wappenschaws be held in 1625 and again in 1626.¹¹ These were so poorly organised and attended that in 1627 the conveners were tasked by the Privy Council to organise their JPs by presbytery and to conduct wappenschaws under the supervision of 'Colonell Harie Bruce', a member of the Council of War. In December that year they were instructed to divide each shire into quarters with a colonel and captains appointed for each.¹² This was a de facto modernisation of the wappenschaw

⁸ NRS, GD16/50/6. NLS: *Adv.MS.29.2.9*. Marwick, *Burgh of Glasgow*, i, p. 397. Laing, *Baillie*, i, pp. 191-192. Inter alia. RPS, 1643/6/86, 1644/6/225, 1646/11/532.

⁹ *RPCS 1545-1569*, pp. 129-130.

¹⁰ RPS, 1609/4/70.

¹¹ *RPCS 1625-1627*, p. 169, pp. 418-419.

¹² *RPCS 1625-1627*, p. 278, p. 608, p. 611. *RPCS 1627-1628*, p. 62, pp. 168-169, pp. 202-205p. 557, p. 558.

system and a precursor of the shire committees of war, but that was not the purpose behind the changes: in reality it reflected the ongoing power struggle between the king and the nobility. Although men must have gained experience in organising wappenschaws and planning defences, the friction caused by the unpopularity of the king's machinations would have limited this. Appointing Colonel Bruce to oversee the musters was an example of what Macinnes described as Charles' 'reluctance to rely on traditional cooperation from the nobility in governing Scotland'.¹³ Alexander Lindsay 2nd Lord Spynie, the 'Generall Mustour Maister' objected to the role given to Bruce, although Bruce retained his role.¹⁴ Overall, men must have benefitted from the planning and organisation involved, but it is important to note that these plans were not subjected to the acid test of being executed.

Although the men who were commissioned as JPs did not exactly mirror the strata of society from which the members of the Covenanters' shire committees were later drawn, there was a considerable overlap. Analysis of 164 men appointed in September 1634 shows that 53% subsequently served on shire committees of war. Of 70 appointees in November 1634 the figure was 58%.¹⁵ Stevenson, however, noted that the king was 'more concerned to limit the powers of the nobility than to advance the lairds' and being aware of this, many lacked enthusiasm for their roles.¹⁶ De facto shire committees also assembled in mid-1638 to carry out the orders of the Tables to audit the resources of the shires. In Argyll, for example, of the 10 lairds (including Sir Duncan Campbell of Auchinbreck and Sir Lauchlan MacLean of Duart) 'chosin as comitte to consult vpon all forder materis for defence of the said Shirefdome', nine subsequently served on Argyll's committee of war in various years.¹⁷ As these men were amongst the hereditary leadership of that shire, this is unsurprising, but it is evidence of an experienced leadership core. It is clear that this activity in the mid-1620s (including the role of JPs, albeit that the king's policies generated little enthusiasm) and in 1638 anticipated the instructions and structures of 1639 which may therefore be described as another example of continuity, although involving the modernisation and formalisation of existing practices.

The system of shire committees remained unchanged from 1639 until the defeat of the Covenanters in 1652. The efficiency of the committees of war left much to be desired throughout, but this was inevitable given the particularly challenging wartime circumstances, including the novel challenge of raising forces for extended distant rather than short local service. Wariston noted in his diary on 1 June

¹³ Macinnes, *Charles I and the Making of the Covenanting Movement*, p. 50.

¹⁴ *RPCS 1625-1627*, p. 568, p. 591.

¹⁵ *RPCS 1633-1635*, pp. 378-389, pp. 424-430.

¹⁶ Stevenson, *Revolution*, p. 41, p. 50.

¹⁷ NRS, *GD112/1/516*, *GD112/39/67/8*. Innes, *Black Book of Taymouth*, p. 397, pp. 391-392. John Atholl, *Chronicles of the Atholl and Tullibardine Families*, (Edinburgh 1908), i, p. 101, Appendix pp. x-xx. Fraser, *Sutherland Book*, ii, pp. 169-170.

1639 that a letter had been sent to the committee of war in Fife ‘taxing them for ther negligence’ in sending out men and for setting an ‘evill example’ in so doing.¹⁸ The Committee of Estates criticised the committees of war in November 1640 saying, ‘that the instructions heretofore sent to [them had] been neglected and altogether slighted be the most part’ and admonished them for ‘bygone neglect in their places [which] hath occasioned all the slightning of publict ordours through the whole country’.¹⁹ In a letter to the committee of war at Dunkeld dated 2 March 1640, the Committee of Estates rebuked them, saying that they had achieved ‘litle or nothing’ and dissolved the committee replacing it with their own nominations. That letter also noted ‘ye slaknes and disorder off ye committies of warre throw ye haill country’, indicating a much wider problem.²⁰ In February 1644 Parliament lamented the inefficiency of the shire committees which was caused by them not only meeting infrequently, but also by poor attendance, and they demanded regular progress reports.²¹ The following June, a still dissatisfied Parliament demanded that the shire committees ‘send two of their number, with their clerk’, to the parliament with their records, acts and orders of their committees, ‘to answer upon their disobedience of the [previously disseminated] orders’ which had resulted in them ‘[putting] out the just half of the number of horse and foot’ required by the February levy.²² Much later, on 7 August 1649, the three presbytery committees of war in Perthshire were taken to task for infrequent and poorly attended meetings. They were ordered in an Act of Parliament to assemble in Perth as a shire committee every 20 days stating that it ‘necessary it is for the good of the shire and for the more ready obedience to be given to the public orders’.²³ Inefficient execution by the committees and ineffective oversight by Parliament and the Estates were at the heart of the mobilisation system which, unsurprisingly struggled to raise and maintain the armies.

An alternative approach was to send parliamentary representatives to supervise the committees. The Committee of Estates gave John Erskine, 3rd earl of Mar on 20 July 1640 ‘Warrant and Commission’ to oversee preparations for mobilisation in the shire of Stirling. He was to ensure that the fencible population of the shire was listed again once the first levy had departed and to oversee the organisation and training of the remaining fencible population. If necessary he was to call for assistance from ‘those similarly commissioned in the shires of Fife, Clackmannan, Perth, Linlithgow and Dumbarton’. Implicit in this last provision is the assumption that the shire committee might prove uncooperative and explicit is the fact that other shires were being supervised.²⁴ As those listed were

¹⁸ Laggan, *Johnston 1639*, p. 52.

¹⁹ *Instructions sent be the Committee of the Estates of Parliament to the whole Schyres, Committies of Warre and Burghs within this Kingdome*, (Edinburgh, 16 November 1640).

²⁰ Atholl, *Atholl and Tullibardine Families*, i, p. 112.

²¹ RPS, 1644/1/67.

²² RPS, 1644/6/23.

²³ RPS, 1649/5/388.

²⁴ HMC, *Report of the Manuscripts of the Earl of Mar and Kellie*, (York 1904), p. 197.

simply the neighbouring shires it is likely that there were other shires where parliamentary oversight was attempted. The imposition of external oversight was also seen in the Act of Parliament passed on 3 January 1644 which stated that not only had some shires not sent their regiments and troops to the army rendezvous on time, but that they had not raised the required numbers of men either. Parliament gave ‘full power and commission to [its representatives] presently to go about the bringing out of the foot and horse’ in the recalcitrant shires.²⁵

In July another Act was passed empowering further representatives of parliament to take the lead in searching out and arresting deserters and acting against their harbourers.²⁶ It is clear that parliament had little confidence in the committees’ ability to carry out their tasks in a timely and efficient manner and also that sending out commissioners had little effect. The shire and presbytery committees present a paradox. Unenthusiastic and heavily criticised for their poor performance, they nonetheless were an essential element of the recruiting and mobilisation system which raised and deployed multiple armies over more than a decade. As a comparison, during the English Parliament’s initial levies for the New Model Army in 1645, the shire and association committees were regularly criticised for lack of enthusiasm, tardiness in providing recruits, shortfalls against levy quotas and they also faced the same problems with apprehending deserters.²⁷ In light of this, it is probable that the shire committees were not only the equal of their English and Welsh peers, but actually functioning as well as could be expected given the many constraints they faced. The Covenanter military machine was very much imperfect, but the fact that it continued to function and to raise armies (albeit of widely varying quality) until 1651 is testament that it was fit for purpose at the most basic level.

The Covenanter Recruiting and Mobilisation ‘System’

The Covenanter system was based on the mobilisation of all or part of the fencible population which consisted of all fit men from 16 to 60 years of age. This age bracket had defined the fencible population in Scotland since at least the fourteenth century, a date to which wappenschaws can also be traced.²⁸ Auditing the fencible population and their weapons continued in this way, albeit increasingly irregularly, until the Bishops’ Wars. The Covenanters mobilised manpower by ordering the levying of the ‘fourth’, ‘eighth’ or ‘tenth’ man as the default fractions of the population. However, as all thirteen levies between September 1643 and June 1650, with one exception in 1648, were based on the 1643 demographics, this was not as precise a system as it might appear.

²⁵ RPS, 1644/1/3.

²⁶ RPS, 1644/6/168.

²⁷ Inter alia. *JHC*, iv, p. 106, p. 231, p. 267. *CSPD 1644-45*, p. 381, p. 444, p. 460, p. 467, p. 524, pp. 529-530, p. 564, p. 625-626.

²⁸ *Acts of the Parliaments of Scotland, Vol 1, 1124-1423*, (Edinburgh 1844), App 5, p. 388/752.

The origin of the ‘fourth’ and ‘eighth’ man is found in the sixteenth-century practise of dividing the kingdom into quarters or eighths as a means of managing mobilisation. The kingdom was quartered in the levy of 1546 and divided into eighths in 1579. In both cases the intention was to mobilise the quarters or eighths sequentially to maintain an army in the field for longer than the obligatory 40 days service.²⁹ Quartering the kingdom in this way and for this purpose is precisely what the Covenanters originally intended in 1638/39, although the plan actually implemented was to call out the levies on the appearance of the enemy’s main fleet or army.³⁰ The casual use, without the need for explanation, of the term the ‘fourth man’ by contemporary diarists and letter writers, as well as in official records demonstrates that the term was part of the contemporary vernacular.³¹ Use of the term continued throughout this Covenanter period. When there was a general mobilisation, the precise quota numbers given to the shires to levy were simply a quarter, an eighth or a tenth of their fencible manpower. This methodology had been refined over time, principally by levying the fourth or eighth man from specified shires rather than every fencible in a quarter or an eighth of the kingdom. Despite this, it is recognisably Scottish representing continuity, not change.

In late December 1638, or early January 1639, detailed instructions were issued by the Tables, which, as noted above, was reported by the earl of Traquair in a letter dated 5 January 1639.³² These instructions ordered the implementation of a three-tier committee system consisting of the Tables, a committee for each quarter of the kingdom and the shire committees. Although not a requirement, a number of shires including Fife, Forfar and Renfrew, also formed subordinate presbytery committees.³³ The Instructions gave guidance on infantry structures and the training requirement for the fencible population. They also ordered wappenschaws to be held and the selection and training of men who were to be at 24 hours’ notice to deploy. Following this direction from Edinburgh, the first step was for the leading men in shires and burghs, by forming committees of war as instructed, to organise musters and wappenschaws. The committees for the quarters of the kingdom were never formed, leaving the shire committees to work directly to the Tables and then Parliament or the Committee of Estates. Although ministers did not sit on the committees of war, they were extensively involved in levying men. The levy itself was announced from the pulpit with a copy pinned to the Kirk wall and the minister could be actively involved in selecting men, depending on the local selection method, examples of which are

²⁹ *RPCS 1545-1569*, pp. 39-40. *RPCS 1578-1585*, pp. 153-154.

³⁰ NRS, PA7/2, GD16/52/19. Hardwicke, *Miscellaneous State Papers*, p. 124.

³¹ Laing, *Baillie*, i, pp. 200-201. Henry Guthry, *The Memoirs of Henry Guthry*, (Glasgow 1747), p. 153. John Fairley, *Unpublished Papers of John Seventh Lord Sinclair*, (Peterhead 1905), p. 25. *CSPD 1640*, p. 331. *CSPD, 1640-1641*, 1882, p. 52, p. 276. Wood, *Burgh of Edinburgh 1642-1655*, p. 39. Marwick, *Burgh of Glasgow i*, p. 399. *RPS, A1644/1/1, 1645/1/139, 1645/11/59*.

³² Hardwicke, *Miscellaneous State Papers*, ii, p. 124.

³³ Laing, *Baillie*, i, pp. 191-192. NLS, Adv.MS.29.2.9. NRS, GD16/50/6. Marwick, *Burgh of Glasgow*, i, p. 397.

described below.³⁴ In 1650 ministers were even required to attend their shire rendezvous and submit a list of their parish fencibles, for the accuracy of which they were held responsible, to the relevant colonels.³⁵

Wappenschaws had been a part of Scottish military culture and mobilisations since at least March 1425 when the Scottish Parliament passed an Act requiring them to be ‘held thrice in the year or four times’.³⁶ All men between the ages of 16 and 60 were required to attend equipped with specific types of weapons and armour according to their rank and income. By September 1626, for example, an earl was required to provide himself and 20 men of his household with the complete equipment of a pikeman, the armour being the most expensive type which was proofed against musket and pistol shot. The requirements applied equally ‘to burgh as to land’ and all inhabitants of burghs were to be equipped as musketeers, pikemen or simply with a halberd or two-handed sword.³⁷ After 1639 the unpopular requirement for the individual to purchase his own weapons was gradually replaced and the system modernised by the provision of weapons by burghs, shire committees, the Scottish Parliament and for Ireland and the ASL&C, partly by the English Parliament.³⁸ In addition to the audit of weapons, which became a lesser feature over time, the purpose of the wappenschaw was to count the number of men available for military service.

The key output of a wappenschaw, therefore, was the foundation of the mobilisation system: the number of fencibles.³⁹ From this was derived the number of men which a shire could be ordered to levy. Parliament and the shire committees had then to organise the fencible population to achieve two tasks. First, the fencibles had to be organised into companies and regiments for both routine training and for the emergency call-out of every man. Second, a subset of those men, the fourth, eighth or tenth man, had to be selected to form the regiments for the field army. This was done by each shire committee dividing its shire into divisions, each with its own colonel.⁴⁰ Although not always shire committee members, the colonels were permitted to attend meetings and had voting rights when they did.⁴¹ This system, while apparently simple, could result in conflicting interests and competition for resources, albeit not insurmountable. A colonel could find that his division straddled shire boundaries. The earl of Buccleuch’s division, for example, included land in Dumfries, Roxburgh and Selkirk and the earl of Cassilis’ division

³⁴ Laing, *Baillie*, ii, p. 441. NRS, *GD10/504*. Nicholson, *Minute Book*, p. 55.

³⁵ RPS, *A1650/11/16*.

³⁶ RPS, *1425/3/24*.

³⁷ *RPCS 1625-1627*, pp. 418-419.

³⁸ Inter alia. *CSPD 1638-1639*, p. 303. *Dumbarton Burgh Records*, p. 56. Wood, *Burgh of Edinburgh 1642-1655*, p. 215. Marwick, *Burgh of Glasgow*, i, p. 397. Cook, *Annals of Pittenweem*, p. 30. Stewart, *Military Power and the Scottish Burghs*, p. 71. David Stevenson, *Financing the Cause of the Covenants*, *Scottish Historical Review*, Vol 51, No 152, October 1972, inter alia, pp. 90-95, p.102, p. 107.

³⁹ RPS, *A1650/11/16*.

⁴⁰ RPS, *1643/6/91*.

⁴¹ NRS, *PA7/2*, *GD16/52/19*. RPS, *1643/6/91*, *1643/6/92*, *1644/6/234*.

consisted of the presbytery of Wigtown (less two of its parishes) and Carrick.⁴² In 1644 Buccleuch faced threats of having men quartered on his Dumfriesshire lands as two separate regiments demanded his contingent of 110 men, a problem resolved only by an intervention from Edinburgh.⁴³ Dealing with several shire committees added friction to the mobilisation process which could be exacerbated by personal differences. Lords Montgomery, Fleming and Boyd required an intervention by the Committee of Estates to define the boundaries of their divisions in Renfrew and Lanark in 1640, although they acted early enough that mobilisation was not delayed. Inverness was singularly challenging with parts of the shire included in the divisions of Archibald Campbell, marquis of Argyll, George MacKenzie, 2nd earl of Seaforth, John Gordon 14th earl of Sutherland, James Stewart, 4th earl of Moray and Hugh Fraser, 7th lord Lovat. The competition for resources in Inverness was such that an oversight committee was created in 1645 to mediate between the committees of war of Moray, Inverness, Sutherland, Nairn and Caithness.⁴⁴ Imperfect though the system was, it worked after a fashion even though, as will be demonstrated, it generally failed to achieve its levy targets.

Once a shire committee had fixed the boundaries of its divisions, it divided the shire's levy quota among the presbyteries if they had their own committees, or among the parishes and burghs in those divisions. Those communities were then responsible for selecting and equipping their men and were given free rein as to how they did so. Men were selected in different ways according to local preferences, but the basic challenge was the same. As noted in Chapter 1, armies consisted of the consenting, the compliant and the coerced. In terms of military capability, consent is exemplified by the volunteers who were highly motivated and were prepared, or even eager, to fight. The largest group consisted of those who did not volunteer but agreed to serve when selected, whose compliance could erode over time and whose actions in battle could be unpredictable. The final group were the least motivated men who had to be coerced into service and who were the most likely to desert. Selection methods reflected how willing men were to enlist. Examples include appointing a group in the burgh or parish which simply chose names from the fencible lists, selection by lottery, encouraging volunteers with rewards, allowing substitutes and forcible conscription.⁴⁵ Conscription was enabled by punitive measures such as confiscation of property for refusing to enlist, the threat of excommunication, imprisonment, loss of privileges as a burgess, public humiliation and banishment.⁴⁶ Imposing such measures was only possible

⁴² RPS, 1643/6/91.

⁴³ William Fraser, *The Scotts of Buccleuch*, (Edinburgh 1878), ii, pp. 281-282.

⁴⁴ NRS, GD3/9/3/2. RPS, 1643/6/91, 1644/1/67, 1645/1/124.

⁴⁵ Inter alia: Reverend Waddell, *An Old Kirk Chronicle*, (Edinburgh 1893), p. 126. John Stuart, *Court Book of the Barony of Leys, Miscellany of the Spalding Club*, (Aberdeen 1852), v, pp. 227-228. Wood, *Burgh of Edinburgh 1642 to 1655*, p. 39, p. 51, p. 110. Cook, *Annals of Pittenweem*, pp. 32-36, p. 52. Laing, *Baillie*, i, p. 201. MacBean, *Kirkcaldy Burgh Records*, p. 164. James Anderson, *The Burgesses and Guild Brethren of Glasgow 1573-1750*, (Edinburgh 1925), p. 114, p. 121, p. 127. Nicholson, *Minute Book*, p. 235. W Chambers, *Charters and Documents relating to the Burgh of Peebles*, (Edinburgh 1872), p. 383.

⁴⁶ Inter alia: Spalding, *Memorials of the Troubles*, i, p. 280, p. 289, p. 314. George Smith, *The Book of Islay*, (Edinburgh 1895). Stuart, *Burgh of Aberdeen 1625-1642*, p. 154. Lane, *King Covenant*, 1956, p. 118. Robert Renwick, *Gleanings from the Records of the Royal Burgh of Peebles*, (Peebles 1892), pp. 161-162. Young, *History of Burntisland*, p. 97.

if the local leadership was sufficiently consenting or compliant, and these levels clearly dropped over time, the nadir being during the Engagement in 1648 and the subsequent ascendancy of the Kirk party. The communities had not only to find men and horses for the cavalry and infantry, but also for the baggage and artillery trains and their guard companies and pioneers. However they were selected, once they were equipped the men were then either marched to a shire rendezvous on a specified date or they stayed at home waiting to be called out. While the balance between consent, compliance and coercion varied over time, the methods used were effective enough to mobilise multiple armies, albeit of varying quality, between 1639 and 1651.⁴⁷

Mobilisation activity continued after a regiment had departed for the army rendezvous: selecting and preparing the eighth and tenth men if that had been ordered, training of the remaining fencibles and preparing for a full emergency mobilisation. This was managed by shire committees, shire colonels who did not deploy, and additional colonels nominated by the shires as necessary.⁴⁸ Of the 71 colonels who were appointed in August 1643, 34 did not command units under Leven or Callendar, but were active politically at shire or national levels. Of those, ten later commanded forces operating against Huntly or Montrose and two joined Montrose, meaning that at least 22 nominated colonels were available for employment in the shires.⁴⁹ In Dumfries and Annandale, James Murray, 2nd earl of Annandale and James Douglas, 2nd earl of Queensberry, Lord Johnstone and Sir Robert Grierson, acted as shire colonels of the un-mobilised fencibles. Of the four, two were appointed by parliament and two locally.⁵⁰ In Fife five colonels were appointed in August 1643, three of whom (Charles Seton, 2nd earl of Dunfermline, John Lindsay 1st earl of Lindsay and Alexander Lindsay, 2nd lord Balcarres) commanded ASL&C regiments. The remaining two, Lords Elcho and Balfour, commanded men against Montrose, although by the time of Kilsyth they were members of the committee with the army and were not commanding regiments.⁵¹ Instead, Fife's three regiments at Kilsyth were commanded by members of the shire committee: James Arnot of Ferny, John Henderson of Fordell, and Sir Thomas Morton of Cambo.⁵²

Shire Colonels were being selected according to the explicit direction from parliament given in February 1644 that shire committees were to appoint them when necessary 'for putting the shire in a posture of defence'.⁵³ There was no real test of the concept of calling out the entire fencible population,

⁴⁷ Inter alia: MacLeod Walter, *Royal Letters and Other Historical Documents*, (Edinburgh 1897), p. 258. *Great Account Delivered in to the English Lords*, (London 1641). NRS, GD3/5/252, GD3/9/4/2, GD3/9/4/3, GD112/39/80/5, PA7/4. *Instructions from the Committee of Estates*, (Edinburgh, 20 October 1643), pp. 1-3.

⁴⁸ RPS, 1644/1/67.

⁴⁹ *Act of the Convention of Estates for Putting the Kingdom into a Posture of Defence*, (Edinburgh, 26 August 1643).

⁵⁰ RPS, 1645/7/24/79.

⁵¹ Laing, *Baillie*, ii, p. 421. Wishart, *Marquis of Montrose*, p. 66.

⁵² RPS, 1644/6/223.

⁵³ RPS, 1644/1/67.

but there were more localised efforts such as that attempted after the defeat at Kilsyth (1645). Loudon tried to raise all the forces of Ayr and its neighbouring shires, assisted by Lanark, Eglinton, Glencairn, Cassilis and the Laird of Cessnock. All six men had been nominated as shire colonels in 1643/44.⁵⁴ When news of the defeat at Kilsyth reached the levies they were attempting to raise, the men immediately dispersed.⁵⁵ In July 1650 the confusion which would be caused by calling out the whole fencible population was finally acknowledged and the ‘mass call out’ to support the field army in the event of invasion was limited to a further 15-20% of the fencibles, depending on the shire.⁵⁶ The concept of colonels and divisions was clearly a robust element of the mobilisation system, but the point was emphatically made after Kilsyth that the fencibles could only be called out en masse if they consented.

Although issuing levy quotas was the basic and enduring model for mobilising forces, a significant number of regiments were raised in other ways, including the well proven method of commissioning an individual to raise a regiment. The regiments raised for service in the European wars were raised following the grant by the king of ‘licence, power, and commission’ to specific individuals to ‘levy and tak’ men.⁵⁷ On 29 August 1627, the future Treasurer William Douglas, 7th earl of Morton was granted in a commission from the king, ‘full power and licence to levie and transport [a] regiment of twa thowsand footemen’. Morton was assisted in his endeavour by a letter from the Privy Council to the ‘nobility, prelates, barons, &c’ requiring them to provide men for the regiment.⁵⁸ In January 1642, writing of raising regiments for Ireland, the Privy Council demonstrated continuity when it noted that its options were ‘the distribution of the nomber to be leveyed upon the shyres, or els be chosing of colonells and officers and giving thame power to levey and touk drume throw the kingdome’.⁵⁹ The Covenanters continued to be flexible in the way they mobilised forces, using what were clearly traditional methods until 1651, as described below. A problem which arose when both shire quotas and commissions to raise men without (or with limited) geographical constraint were issued simultaneously was that they were competing for volunteers in the same pools of fencibles.⁶⁰

In 1639 Monro’s regiment of 2000 men was raised from the shires south of the Tay, which were given levies ranging from 50 to 320 men.⁶¹ In 1640, the North and South Regiments commanded by Monro and Cochrane respectively, were raised in a similar manner, although Monro also pressed 150 men

⁵⁴ RPS, 1643/6/91, 1644/1/131

⁵⁵ NRS, GD3/5/359.

⁵⁶ RPS, A1650/5/116.

⁵⁷ Inter alia. *RPCS 1625-1627*, p. 315, p. 354, p. 531, p. 539.

⁵⁸ *RPCS 1627-1628*, p. 38, p. 51.

⁵⁹ *RPCS 1638-1643*, p. 524.

⁶⁰ Marwick, *Burgh of Glasgow*, ii, p. 64. Alexander Maxwell, *The History of Old Dundee*, (Edinburgh 1884), p. 478. Shearer, *Burgh Records of Dunfermline*, p. 216.

⁶¹ NRS, RH15/29/160, GD26/7/158.

in Aberdeen. The levies for these regiments were in addition to the subsequently allocated shire quotas.⁶² Montgomery raised a unique brigade in both Bishops' Wars, which is examined in detail in Chapter 4.⁶³ The attempt by the Privy Council to raise regiments for Ireland in 1642 using shire levy quotas failed owing to opposition at the local level. They were instead raised by men such as Argyll, Leven, Lothian and Eglinton who were given commissions to do so and who raised them without imposed geographical constraints. It is noteworthy that having been raised outside the quota system, when mustered in Ireland, they proved to be very well manned.⁶⁴ Sir John Brown of Fordell, Thomas Craig of Riccarton and William Stewart were also personally charged with raising troops of horse in 1643.⁶⁵ The College of Justice in Edinburgh raised, at its own expense, an infantry regiment in 1639, an infantry regiment plus a cavalry troop in 1640 which was then repeated for the ASL&C and a cavalry regiment for the Engagement.⁶⁶ The Ministers' Regiment of Foot raised in 1643/44 was initially to be recruited by every minister providing a fully equipped soldier, but this was so ineffectually complied with that it remained understrength throughout its life. The Ministers' Regiment of Horse was far more successfully raised in 1650.⁶⁷ Hugh Fraser raised a dragoon regiment in 1643/44 which was not included in the Acts of Parliament, but there is no evidence for how it was raised.⁶⁸ Michael Weldon (an Englishman) and Jonas van Druschke (a Dutchman) both raised Covenanter cavalry regiments although how they did so is also unknown.⁶⁹

Another regiment which diverged from the shire quota model, was one of gentlemen volunteer cavalry which Argyll had been tasked with raising sometime before 19 February 1640. On that date he wrote to W. T. Campbell telling him that 'I expect your presence at our randevous'.⁷⁰ On 30 June the Committee of Estates passed an Act requiring 'every Barron and Gentle-man of good sort' to volunteer for the army, or to 'be censured [and to] be repute and holden as Loytters'.⁷¹ This was probably the prompt for Lanarkshire to order 'all the Gentlemen troupers horsmen to [...] mak thair randevous in Lanark Moore' on 11 July. Too few volunteered, however, and the regiment had still not been raised weeks after the army had invaded England and captured Newcastle. On 19 September Argyll wrote a

⁶² Marwick, *Burgh of Glasgow*, i, p. 483. Spalding, *Memorials of the Troubles*, i, p. 280. Cramond, *Records of Elgin*, i, pp. 266-267. Young, *History of Burntisland*, p. 97. NRS, GD112/39/78/10, GD112/39/78/12. Nicholson, *Minute Book*, pp. 71-72.

⁶³ Fraser, *Memorials of the Montgomeries*, ii, pp. 291-292. NRS, GD3/9/5/3/15.

⁶⁴ *RPCS 1638-1643*, pp. 170-171, p. 197, p. 228, p. 501, p. 523. RPS, 1643/6/83. Arch Primerose, *Act of the Committee of Estates For Contriving the severall Troupes appointed to come out of the Shires into Regiments*, 1643. Stevenson, *Scottish Covenanters and Irish Confederates*, pp. 325-329.

⁶⁵ RPS, 1643/6/83.

⁶⁶ Somerville, *Memorie of the Somervilles*, ii, pp. 275-278. JHL, viii, p. 186. *Act for Leavying of some Forces*, (Edinburgh 1648), p. 5.

⁶⁷ Inter alia: George Kinloch, *Selections from the Minutes of the Presbyteries of St Andrews and Cupar 1641-1698*, (Edinburgh 1837), p. 15. NRS, CH2/144/1, p. 298. NRS, CH2/224/1, p. 600. Stevenson, *Presbytrie Booke of Kirkcaldie*, p. 362, pp. 367-369.

⁶⁸ SSNE Database, 3472. Furgol, *Regimental History*, pp. 138-141.

⁶⁹ Sydney Lee, *Dictionary of National Biography*, Vol 60, (London 1899), p. 163. HMC, *Thirteenth Report, Appendix Part I, The Manuscripts of His Grace the Duke of Portland*, (London 1891), p. 202. Terry, *Papers Relating to the ASL&C*, i, p. xxv. Roberts, *The Cromwell Association Online Directory of Parliamentary Army Officers*. Balfour, *Historical Works*, iii, pp. 345-346.

⁷⁰ James Maidment, *The Argyll Papers*, (Edinburgh 1834), pp. 29-30.

⁷¹ *Act Anent the out coming of Horses [etc]*, (Edinburgh 1640).

letter to the Laird of Balfour in Fife, identical to that sent to Campbell in February, including the same exhortation: ‘I expect your presence at our randevous’.⁷² On the same day, the Committee of Estates wrote to the committee of war in Paisley urging ‘all gentlemen well affected to the cause to come out in person or supply deputies, with the earl of Argyll as colonel’.⁷³ This was probably one of a number of identical letters sent out to the shires, as the Dumbarton’s burgh records for 2 October noted that the ‘gentilmen of the shyre and burgh’ were to be ready to ride with Argyll when summoned.⁷⁴ On 9 October the Committee of Estates wrote a letter berating Kirkcudbright’s committee of war for not having sent out any ‘gentillmen and volunteires’ at all. Three days later a second letter urged them to send their volunteers to Edinburgh where Argyll waited with those who had already assembled. On 13 October the Kirkcudbright committee set its rendezvous ‘at the Mylnetoun the xvij of this instant’ (17 October).⁷⁵ By 26 October, when the Cessation of Arms was signed, there were too few volunteers and Argyll was instructed to dismiss those that had.⁷⁶ After some eight months of mostly ineffective activity, a significant proportion of the gentlemen of the shires had proven to be neither consenting nor compliant and had not been coerced.

This short survey has not included numerous contingents which were raised such as garrisons inside Scotland (amounting to ‘4,300 foot and six troops of horse’ in December 1645), yet even so, this is a significant number of units raised outside the levy quota model.⁷⁷ They were too numerous to be dismissed as exceptions to the ‘standard’ mobilisation system and must be seen as a necessary adjunct to it. The evidence shows that these units were generally better recruited than the regiments mobilised using shire quotas, except for the Ministers’ Regiment of Foot. The average strength of the infantry regiments when mustered in Ulster in 1642 being over 1000 officers and men demonstrates this well.⁷⁸ It is of note that a number of those involved in recruiting these troops, such as Monro, Fraser, and Weldon’s Lieutenant Colonel, Alexander Home, were veterans of the European wars. Veterans would have had knowledge and in some cases experience, of actively seeking out and recruiting men rather than waiting for the mobilisation of quotas of men from burghs and parishes. Successfully raising these regiments therefore represents another element of continuity in the system. It also shows, however, that the primary mobilisation system based on shire quotas was not capable of meeting the Covenanters’ needs on its own, although this was also true of the Royalist and English Parliamentary systems. As seen in the initial failure to raise regiments for Ulster, it also demonstrates that without consent in the shires, the centre

⁷² HMC, *Report on the Laing Manuscripts*, (London 1914), i, p. 205.

⁷³ NRS, GD393/74.

⁷⁴ *Dumbarton Burgh Records*, p. 62.

⁷⁵ Nicholson, *Minute Book*, pp. 60-71.

⁷⁶ NRS, GD112/39/82/21.

⁷⁷ RPS, 1645/11/61.

⁷⁸ Stevenson, *Scottish Covenanters and Irish Confederates*, pp. 325-329.

lacked the coercive means to raise substantial forces, although the Covenanter regime was not unique in this respect.

Where there is sufficient data, analysis of mobilisation timelines demonstrates shortfalls in numbers levied compared to the target quotas sent to the shires. The first mobilisation for which there is sufficient data to compare the number of men called out and the number actually raised is that for the ASL&C. This was the fourth major mobilisation in five years and should have demonstrated the efficiency of a well-practiced process: it did not. The army which marched into England on 19 January 1644, had had more than 4 months to mobilise, yet there was a significant shortfall in numbers as outlined below. Not included in the shires' levy quotas, were the Ministers' Foot, College of Justice's Foot, Argyll's troop of cavalry, Weldon's Horse, Fraser's Dragoons, and 300 cavalry raised before August.

1643/44 Levy Summary			
Date	Foot	Horse	Dragoons
Shires' levy requirement Nov 1643.	22,500	3,160	---
ASL&C strength Jan 1644.	18,000	3,000	500
ASL&C strength Feb 1644.	20,000	3,100	---
Elements of ASL&C not raised by shire quotas.	1,700 (8.5%)	780 (25%)	500 (100%)
Levy shortfall.	4,200 (19%)	820 (26%)	---
Table 2.1 ⁷⁹			

Although the figures are approximate, Table 2.1 shows that there is a clear shortfall in the numbers levied, and a significant proportion of those levied had not joined the army in time for the invasion of England. The mobilisation process was slow to start. Having issued the initial levy requirement on 1 September, the Committee of Estates waited until 28 September to order that musters be held between 4 and 20 October.⁸⁰ Musters were held in that window in Ayrshire, the burgh and shire of Edinburgh, Glasgow and Dundee, although Dundee's was so poorly attended that the count was unusable.⁸¹ Aberdeen, Glasgow, Edinburgh, Peebles and Tynninghame did not, however, nominate their officers or select their 'fourth men', until mere days before the army rendezvous on 29 December 1643. In Aberdeen and Glasgow officers were still being appointed in January and Glasgow's captain (George Porterfield) attended the Convention of Estates in Edinburgh on 3 January, at which time he was also purchasing

⁷⁹ RPS, 1643/6/77. *Act of the Convention of Estates: For Putting the Kingdom into a Posture of Defence*, (Edinburgh, 26 August 1643), p. 18. *Instructions sent be the Committee of the Estates of Parliament [etc]*, (Edinburgh, 24 November 1643). *Instructions sent be the Committee of the Estates of Parliament to The Colonels and Committees of Warre*, (Edinburgh, Dec 11, 1643). RPS, 1643/6/47, 1643/6/83. *Act .. for Contriving Several Troupes [...] into Regiments*, 26 November 1643. *A Full Relation of the Scots March from Barwicke to Newcastle*, (London 1644). *A List of the Severall Regiments and Chief Officers of the Scottish Army Quartered Near Newcastle*, (London 1644). Somerville, *Memorie of the Somervilles*, ii, pp. 277-278.

⁸⁰ *Instructions from the Committee of Estates*, (Edinburgh, 20 October 1643), p. 1. NRS, PA11/1. Stevenson, *Scottish Revolution*, p. 295.

⁸¹ D. Robertson, *South Leith Records*, (Edinburgh 1911), p. 45. Wood, *Burgh of Edinburgh 1642 to 1655*, p. 34. HMC, *The Manuscripts of the Duke of Roxburghe, [etc]*, (London 1894), p. 93. Marwick, *Burgh of Glasgow ii*, p. 61. *Royal Burgh of Dundee*, p. 256. Maxwell, *History of Old Dundee*, p. 476.

muskets for troops who should already have deployed.⁸² Kirkcaldy's contingent was still at home on 2 January, despite this being after the rendezvous date.⁸³ On 9 January, Parliament refused Sir Patrick Hepburn's request to abandon the task of raising his regiment owing to a dearth of men.⁸⁴ The contingent from Selkirk did not march out of the burgh until 23 January and companies were still departing Aberdeen in February.⁸⁵ An army was undoubtedly raised, but far from efficiently.

Mobilisation did not proceed with urgency in the shires, but Parliament too was slow to act and impose its authority. On 3 January 1644 Parliament condemned the general lethargy, threatened to quarter troops on problem heritors and sent commissioners out to galvanise the shire committees.⁸⁶ On 22 January another Act addressed the growing problem of desertion, threatening multiple heavy fines for any shire committee members who did not rigorously enforce the Act's provisions, indicating that they were seen as part of the problem.⁸⁷ On 1 February, reacting to shire committees meeting infrequently and being poorly attended, Parliament resorted to demanding monthly reports and attendance records and to threaten their members with further fines.⁸⁸ Also on 1 February, orders were issued (repeating the Committee of Estates' orders given ten days earlier) for the 'many' ASL&C officers who were absent from their regiments to report for duty.⁸⁹ On 11 December 1643 the Committee of Estates directed that, owing to a shortage of weapons, the shires could only draw on the public magazines in extremis.⁹⁰ This implies that there were not enough weapons: Table 2.2 demonstrates that this was so.

Weapons Issued to ASL&C Regiments 1644													
Weapon Type	J	F	M	A	M	J	J	A	S	O	N	D	Total
Muskets	110	2014	779	72	197	28	03	156	103	60	24	309	3855
Pikes		172	173	31	163	62	26	257	119		144	104	1251
Swords	159	429										50	638
Pair Pistols			15			334	43						392
Lances		94		230	03	150							477
Swedish Feathers		2908	120		300							150	3478
Table 2.2 ⁹¹													

The spike in weapons issued from the Army's stores to the regiments in February/March 1644 shows that while the cavalry was well equipped on crossing into England on 19 January, the infantry was not. Over 3,100 men, or some 15% of the infantry, lacked muskets or pikes, in some cases for up to two months

⁸² Stuart, *Burgh of Aberdeen 1643-1747*, pp. 11-12. Marwick, *Burgh of Glasgow ii*, p. 64, p. 66. Glasgow Council, *Memorabilia of the City of Glasgow*, (Glasgow 1868), p. 98. Wood, *Burgh of Edinburgh 1642 to 1655*, p. 39. Renwick, *Burgh of Peebles*, p. 168. NRS CH2/359/1.

⁸³ MacBean, *Kirkcaldy Burgh Records*, p. 164.

⁸⁴ RPS, 1644/1/39. 1644/1/43.

⁸⁵ T Craig-Brown, *The History of Selkirkshire The Burgh and Parish of Selkirk*, (Edinburgh 1886), ii, pp. 60-61. Spalding, *Memorials of the Troubles*, ii, p. 320.

⁸⁶ RPS, 1644/1/3.

⁸⁷ *Act Anent these who are or Shall be Fugitives or Runawayes*, (Edinburgh, 22 January 1644).

⁸⁸ RPS, 1644/1/67.

⁸⁹ RPS, 1644/1/68.

⁹⁰ *Instructions sent be the Committee of the Estates*, Dec 11, 1643, p. 7.

⁹¹ Terry, *Papers Relating to the ASL&C*, pp. 39-139.

while operating in enemy territory. This will be examined in greater detail in Chapter 4. The army which invaded England contained units which lacked officers and were understrength, under-equipped, under-trained and late.

The greatest weakness of the Covenanter mobilisation system was a that there was no routine mechanism to provide regiments with replacements to maintain or rebuild their strength. The Swedish system, for example, included annual levies to provide regiments with replacements.⁹² The default solution on the part of Parliament was to order the apprehension of deserters and deficient and return them to their regiments. The onus was clearly laid on shires to arrest their deserters and deficient, although by 1645 regimental officers had also been authorised to hunt for their own deserters in their home shires or recruiting areas.⁹³ Nevertheless, Parliament frequently complained that they were failing in that task.⁹⁴ The result was continued attrition of regimental strengths, which prompted Leven (with the assistance of the Earls of Fairfax and Manchester) at least in July 1644 to forcibly conscript an unknown number of Yorkshiremen.⁹⁵ Twenty-three of the infantry regiments in England between December 1644 and November 1646 returned muster figures between 464 and 791, compared to a theoretical full strength of 1000 or more.⁹⁶ There were only three levies which were specifically intended to rebuild named regiments which were in June and August 1645 and February 1646, although there is no evidence of the first two being executed owing to the disruption caused by Montrose.⁹⁷ Four of the regiments allocated reinforcements in the June levy sent men back to Scotland within weeks of the Act and the August levy was dated 10 days before the Battle of Kilsyth.

In addition to these levies, other Acts were passed in 1645 and 1646 to deal with specific regiments, but there was clearly no coherent, long term policy being applied.⁹⁸ The February 1646 Act ordered levies to reinforce 17 of the regiments in England. The muster records for only 10 of those regiments show increases within the following 6 months which fell very short of the levy requirement (see Table 2.3). Some of the increases were probably returning detachments rather than new recruits.⁹⁹ Although the record is incomplete, there is no doubt that the levy did not deliver the planned number of

⁹² Michael Roberts, *Gustavus Adolphus 1626-1632*, (London 1958), ii, p. 208.

⁹³ RPS, 1645/11/60.

⁹⁴ Inter alia: RPS, 1645/11/60.

⁹⁵ Spalding, *Memorials of the Troubles*, ii, p. 383.

⁹⁶ Terry, *Papers Relating to the ASL&C*, i, p. 171, p. 186, pp. 190-229, ii, pp. 431-460, pp. 470-482, pp. 523-524, pp. 549-553, p. 561, pp. 572-574, pp. 590-598, pp. 618-624, pp. 634-640, pp. 656-657. Terry CS, *Free Quarters in Linlithgow 1642-1647*, SHR, Oct 1916, pp 75-80. *JHL*, viii, p.186. CSPD 1644-1645, p. 336. CSPD 1645-1647, p. 313.

⁹⁷ *Committee of Estates at Stirling 12 June 1645*, (Edinburgh 1645). RPS, 1645/7/24/31. *Act Anent the recruiting the Armies*, (St Andrews, February 4 and 20 1646).

⁹⁸ RPS, 1645/1/135, 1645/1/136, 1645/1/139, 1645/7/8/22, 1645/11/64.

⁹⁹ Terry, *Papers Relating to the ASL&C*, inter alia, i, p.167, p. 173, p. 187, p. 188, p. 213 p. 230. Terry, *Alexander Leslie*, p. 388. *JHL*, viii, p. 186. CSPD 1644-1645, p. 336. CSPD 1645-1647, p. 313. Furgol, *Regimental History*, inter alia, p. 120, p. 132, p. 142, p. 161.

reinforcements. While this indicates a failing in the Covenanters' system, similar problems could be found in other armies. Muster figures for seven Royalist regiments show a mean strength of 613 men in November 1642, but only 325 in April 1644.¹⁰⁰ Essex's Parliamentary army was 4,452 men or 60% understrength in March 1644 showing the effects of attrition. Similarly, in February 1645, the Lord President of Munster requested 'two thousand Foot for Recruits' to bring his infantry regiments up to strength. Only combined cavalry and infantry muster figures are available for Munsters' forces, but 2000 men was 17.5% of the total.¹⁰¹ By 1650, however, the English Parliament was meeting the issue by ordering that drafts 'should be drawn out [of regiments in England] and marched to Scotland, for recruit of the foot regiments', with those drafts being replaced with new recruits.¹⁰²

Intended Reinforcements (Feb 46 Levy) vs Actual Regimental Strengths								
Regiment	Levy Feb 46	Mar 46	Apr 46	May 46	Jun 46	Jul 46	Aug 46	Difference
Cranston	Share/800	513	513	513	625	626	528	+113
Hepburn/Humby	300	651	893	1017	1018	1020	1026	+375
Douglas of Kelhead	300		797	754	767			-30
Dunfermline	200	550		550				0
Erschine/Ministers'	300	257	243	243				-12
General of Artillery	400							Not Known
Livingstone	399	370	468	468				+98
Ludo Leslie	Share/600	632	632	632	714	714	714	+82
Lothian	Share/800	532	592	592	773	772	772	+241
Lumsden	150	614	638	647	647	647	647	+33
Marischall	600	403	403	403				0
Rae	600	433	439	516	540	540	550	+117
Ruthven/Freeland	400	336	345	345				+9
Scott	Share/800	301	358	358				+57
Stewart	300	Dec 45: 500. Sep 46: 450						-50
Home of Wedderburn	Share/600	612	596	596				-16
Yester	800	533	537	537	544	670	686	+153
Totals	6,149							1,278 (20.8%)
NOTE. Where multiple muster records exist for a single month, the highest figure has been used.								
Table 2.3¹⁰³								

A train of artillery could be a large and resource-intensive organisation which included capabilities other than guns. It was, necessarily, an organisation which was tailored to the size and mission of the force it supported. The general of artillery was responsible for designing and mobilising a train of artillery, although this was done as part of a committee for the artillery for the ASL&C in 1643/44

¹⁰⁰ Peter Young, *The English Civil War Armies*, (London 1973), pp. 23-24.

¹⁰¹ Charles, Firth *The Regimental History of Cromwell's Army*, (Oxford 1940), ii, p. 425. *JHC*, iv, pp. 432-433.

¹⁰² *CSPD 1650*, p. 394, p. 461.

¹⁰³ Terry, *Papers Relating to the ASL&C*, i pp. 39-139. *Committee of Estates at Stirling 12 June 1645*, (Edinburgh 1645). RPS, 1645/7/24/31. *Act Anent the recruiting the Armies*, (St Andrews, February 4 and 20 1646).

and when the army was new modelled in 1647. Once recommendations had been made they were approved by the Committee of Estates or Parliament.¹⁰⁴ In 1640/41 in addition to its ordnance, the train included at least 30 ammunition waggons, 1000 pack animals, 500 draught horses, and thousands of cattle and sheep.¹⁰⁵ The ASL&C's train of 1644 contained the army's guns, bridging capability, ammunition, spare weapons, baggage and specialists such as carpenters, blacksmiths, coopers and wheelwrights.¹⁰⁶ In contrast, when Campbell of Lawers marched his regiment to Dumfries in April 1644 in response to Montrose's occupation of the burgh, he had only three guns with stores and two gunners.¹⁰⁷

A typical train would therefore have consisted of professional artillerymen and engineers, civilian artisans, wagon drivers, general labourers such as pioneers and large numbers of draught and pack animals. Many of these men plied their trades in peace as well as in war and there were significant numbers of them in Edinburgh and Leith, including the Masters of Works (master gunner/wright/mason etc). They were responsible for 'Building and Repairing Royal Places and Castles' and would have been essential contacts for recruiting.¹⁰⁸ The trains were raised using a combination of levying the shires and centralised recruiting and procurement for specialist men and equipment. Shires were given quotas for guards, pioneers, horses, carts and tools just as they were for cavalry and infantry.¹⁰⁹ The specialists would have been recruited by officers of the Train, but the Committee of Estates could also be directly involved at it was in 1650 when it exempted those craftsmen who had joined the train from being taxed to meet the costs of the levy.¹¹⁰

A greater challenge for mobilising the train was the recruitment of gunners and engineers. In 1639 the shires were instructed to enlist and train gunners and engineers, but gunners were centrally recruited and employed in 1640 which was probably the model thereafter.¹¹¹ Gunners were available to recruit or conscript in Edinburgh, Leith and the coastal burghs where artillery formed part of the defences against attack from the sea. The gunners who manned the guns on merchant vessels also served on land, as the skillsets and equipment were, in many ways, almost identical.¹¹² In 1618 the Privy Council for England authorised the provision of 'two hundred small peeces of cast iron ordnance of fallcon, minion, and sacr' to arm the Scottish merchant fleet, clearly indicating that there were many such gunners in maritime

¹⁰⁴ NRS, *PA11/1*, f 88v. RPS, 1646/11/306, 1646/11/319, 1646/11/327, 1649/5/215.

¹⁰⁵ CSPD 1640, p. 587, p. 622, p. 644. *Great Account*, p. 3.

¹⁰⁶ Terry, *Papers Relating to the ASL&C*, i, pp. 15-37, p. 117. Thomas Birch, *A Collection of the State Papers of John Thurloe, 1638-1653*, (London 1742), p. 45.

¹⁰⁷ RPS, 1644/1/108.

¹⁰⁸ Michael Lynn, *Urbanisation and Urban networks in Seventeenth Century Scotland*, Scottish Economic & Social History 12, 1992, pp. 24-25, p. 37. Imrie, Dunbar, *Accounts of the Masters of Works*, ii, pp. lviii-lxiv.

¹⁰⁹ CSPD 1640, p. 331. NRS, GD3/9/4/3, GD75/642, GD112/39/80/5.

¹¹⁰ Wood, *Burgh of Edinburgh 1642 to 1655*, p. 252.

¹¹¹ NRS, PA7/2, GD16/52/19. Stuart, *Burgh of Aberdeen 1625-1642*, p. 215. Spalding, *Memorials of the Troubles*, ii, p. 489.

¹¹² Gordon, *Scots Affairs*, ii, pp. 207. Laing, *Baillie*, i, p. 197. CSPD 1637-1638, p. 236.

service.¹¹³ In 1642, when the Royalist ship *Providence* ran aground near Hull, Royalist forces conscripted her guns and her crew to man them, illustrating the overlap between the land and sea environments.¹¹⁴

The majority of gunners and engineers were routinely supervised by the experts and needed only basic skillsets or were simply physical labourers and therefore more easily recruited. Another group was the gunners who manned the regimental guns integral to the infantry regiments (see Chapter 6), who would have had to be trained in their use. There is no record of how this was done, but such training would have been less onerous than that for field or siege artillery owing to the deliberately simple design and drills for their use. Eglinton employed a gunner for four months during the First Bishops' War who may have been employed for this purpose amongst others.¹¹⁵ As will be described in Chapter 6, under Alexander Hamilton, the Covenanters mobilised well manned and well equipped trains until the Engagement. As an example, at the Siege of Newcastle (1644), the train deployed and supported five mixed batteries of field and siege guns throughout, in addition to successfully building and maintaining at least one bridge.¹¹⁶ The ASL&C's artillery train was mobilised more efficiently than the cavalry and infantry. This is likely to reflect the fact that many of its officers and experts plied the same trade in peace as in war, which would have been an advantage throughout the period.

The Covenanters lacked resources of all kinds, but manpower was the most critical, specifically not enough of Wigram's 'gutful men'. England's population in the seventeenth century was 4-5 million compared to Scotland's 1-1.2 million.¹¹⁷ The entire fencible population of Scotland, based on the levies of 1643/44, was approximately 129,000 men.¹¹⁸ By comparison, in February 1638 the Trained Bands alone of 'the fifty-two counties of England and Wales, along with the Bishopric of Durham, Bristol, the Cinque Ports, London, and Newcastle' numbered a total of some 99,000 men, cavalry and infantry. 4,960 of these came from Kent, but the county had an additional 20,276 'able men' who were not enrolled in its Trained Band. Similarly, Derbyshire had only 474 in its Trained Band but had another 17,308 not enrolled, the figures for Gloucestershire were 3,320 and approximately 18,000 and for Suffolk 4,448 and approximately 19,000.¹¹⁹ The total number of such 'able men' in England and Wales has yet to be calculated, but with these four counties alone having manpower equal to some two thirds of Scotland's total, the scale of the mismatch is clear. These numbers do not mean that raising a field army of 50,000 or

¹¹³ *Acts of the Privy Council of England 1618-1619*, HMSO, 1929, p. 299.

¹¹⁴ JS Clarke, *The Life of James the Second*, (London 1816), i, p. 9. HMC, *5th Report, Appendix*, (London 1876), p. 191. *CSPD 1641-1643*, p. 346.

¹¹⁵ *Instructions sent be the Committee of the Estates of Parliament*, 20 October 1643, p. 3. Fraser, *Memorials of the Montgomeries*, ii, p. 293.

¹¹⁶ Terry, *Papers Relating to the ASL&C*, i, pp. 117-120, ii, p. 318.

¹¹⁷ Roger Mason, *Debating Britain in Seventeenth-Century Scotland*, *Journal of Scottish Historical Studies*, May 2015, p. 9.

¹¹⁸ *Instructions sent be the Committee of the Estates*, December 11, 1643. RPS, *1644/1/67*.

¹¹⁹ Fissel, *Bishops' Wars*, p. 195. *CSPD 1638-1639*, p. 195, pp. 286-287. Charles Banks, *Able Men of Suffolk 1638*, (Boston, 1931), p. xvi. Peter Leadbetter, *The Perfect Militia*, (Warwick 2021), Kindle Loc 89.

100,000 men would have been feasible, but they do mean that military capability based on them was more resilient, particularly after the First English Civil War. A larger manpower pool in England meant that there were more consenting and compliant men available to both sides, although coercion was still necessary and was often used. The king's army in the Second Bishops' War, however, had a far lower desertion rate than the Covenanters', for example, with musters of 16 infantry regiments between September 1640 and January 1641 showing total losses from all causes of only 327 men. The Covenanters, in contrast, had lost 4,000 men to desertion by late September 1640 alone.¹²⁰ Larger manpower resources also meant that more men remained economically active, directly and indirectly providing the means to supply the needs of military capability which was considerably greater than that available in Scotland. The mismatch in manpower between England and Wales and Scotland was a key factor in the Covenanters defeat, not least when attempting such ambitious schemes with so few men.

Swedish Influences

Furgol was the first, in 1990, to argue that the Covenanters adopted the Swedish mobilisation system through 'the importation of Swedish practices by Scottish officers who had served with that army.' He listed a number of points of similarity, which were: that both 'nominated colonels, authorised the levying of troops and established the quotas each shire would provide' from the centre, that both 'established military districts', that 'recruits were selected by their own communities' and that 'regular officers and gunners [...] transported and manned the cannon'.¹²¹ As described in the Introduction, this is the basic premise which permeates subsequent historiography. Although there were undoubtedly Swedish influences in the Covenanter military machine there was as far more continuity in the mobilisation system than change from the outset in 1639. Such changes reflected modernisation of the existing system not the wholesale adoption of a Swedish one. This section argues that apparent similarities with the Swedish system are superficial and tend to underplay internal continuity and wider international influences.

Monarchs across Europe in the seventeenth century commissioned colonels to raise regiments: central appointments. As noted above, Morton was commissioned in this way in 1627, as were the men who raised regiments for mercenary service abroad.¹²² In 1638/39, the clear direction from the Tables was for the shire committees to select all of their officers. Monro was the obvious exception, but that could hardly have been otherwise as his regiment was raised from some 16 shires and burghs.¹²³ In 1639, the involvement of the Tables was limited to arbitration 'if in the distribution of these [officers'] places

¹²⁰ *CSPD 1640-1641*, p. 136, p. 438. Laing, *Baillie, i*, pp. 260-261.

¹²¹ Furgol in *Scottish National Covenant*, pp. 138-148.

¹²² *RPCS 1627-1628*, pp. 50-51.

¹²³ NRS, *GD16/52/19*, *PA7/2*, *GD26/7/158*.

the committee have difficulty to agree or give contentment to the gentlemen of the shire'.¹²⁴ Covenanter colonels began to be centrally appointed from June 1640 onwards, an example of which was when Leslie overruled the shire committee of Forfar insisting that his order to James, Lord Carnegie (later 2nd earl of Southesk) to bring out a regiment was to stand.¹²⁵ Also in 1640, the Committee of Estates instructed the committee of war for Morayshire to allow John Sinclair, 9th Lord Sinclair, to muster a regiment.¹²⁶ More clearly in 1642, the Privy Council appointed the colonels for the regiments being raised for service in Ulster.¹²⁷ From 1643 onwards, shire colonels were centrally appointed by Acts of Parliament, but if a colonel's position should 'become vacant by death or otherwise, with power to [the shire] committee from the estates to appoint others in their place'. This authority was renewed in the Acts of 1644, 1646 and 1647, but not thereafter.¹²⁸ Similarly, shire committees could routinely appoint colonels when it was necessary 'for putting the shire in a posture of defence'.¹²⁹ The central appointment of colonels is therefore a superficial similarity because it was a well establish European practice and it was quite clearly not imported by recalled veterans in 1639 as the first colonels were locally appointed.

Conducting levies by the allocation of quotas as a proportion of the available manpower was common practice in Europe, including Scotland, England and Wales, although it was undoubtedly implemented in a more sophisticated way in Sweden.¹³⁰ From the ninth century onwards, Frisian counts often called out every fourth man;¹³¹ in Brabant in 1479, the fourth man was levied to fight the French;¹³² Edinburgh guarded the city with the fourth man every night in the aftermath of Flodden in 1513;¹³³ and in 1517 the Burgundian authorities in Holland called out the fourth man from their cities.¹³⁴ Intelligence reports from Spain relayed to Elizabeth of England by James VI noted that 'all the fencible Men of Spain and Portugall are quinted, and of every fyfte Man of thame is composed ane armie'.¹³⁵ Levies in Scotland had been centrally initiated well before the Covenanter period, usually through the Privy Council. Shires were given quotas to raise couched in the terms of the fourth and eighth man. This was the case with the levies of 1546, 1565, 1579, 1582, 1599, 1603 and 1627 amongst others, whether they were actually raised or not.¹³⁶ One significant difference between the Covenanter and the Swedish systems, as noted above, was that Sweden conducted annual conscriptions to maintain the army which the Covenanters did not.

¹²⁴ *CSPD 1638-1639*, p. 409.

¹²⁵ Fairley, *Unpublished Papers*, p. 25.

¹²⁶ Fairley, *Unpublished Papers*, p. 30.

¹²⁷ *RPCS 1638-1643*, p. 221.

¹²⁸ *RPS*, 1643/6/92. 1644/6/225. 1645/11/197. 1646/11/532. 1648/3/79. 1649/1/133.

¹²⁹ *RPS*, 1644/1/67.

¹³⁰ John Rushworth, *Historical Collections 1629-1638*, (London 1659), p. 827. James Willard, William Morris, *The English Government at Work, 1327-1336, Vol 1*, (Cambridge Massachusetts 1940), p. 356.

¹³¹ Dean, *Frisian Militia System*, p. 35.

¹³² Wee, *Growth of the Antwerp Market*, p. 96.

¹³³ *Encyclopaedia Britannica Vol 4 D-F*, (Edinburgh 1779), p. 2623.

¹³⁴ Hans Mol, *The Frisian Popular Militias between 1480 and 1560*, (Amsterdam 2022), p. 193, p. 200

¹³⁵ Robertus Sanderson, *Foedera Conventiones Literae, Vol 16*, (London 1615), p. 336.

¹³⁶ *RPCS 1545-1569*, pp. 39-40, p. 349. *RPCS 1578-1585*, pp. 153-154, p. 524. *RPCS 1599-1604*, p. 525, pp. 838-839. *RPCS 1627-1628*, pp. 50-51.

Another difference was that there were far more men who were permanently exempted from conscription in Sweden where there were even ‘several privileged areas or farms which were totally exempt from or only saw limited conscriptions’.¹³⁷ Although the Covenanters did exempt shires and burghs which had suffered, for example, losses to their population from plague or from Montrose’s and MacColla’s attacks, this was not the same underlying logic used by the Swedes to grant exemptions. Giving quotas to shires was an example of continuity and is not evidence of the adoption of the Swedish system.

Both in Scotland and in Sweden regiments were linked to geographical areas from which they were recruited, but in Scotland there were no fixed or enduring military districts. Dividing Scotland into mobilisation areas was not new and how it was divided changed according to need. Recruiting regiments from specific areas was simply a modernised version of traditional methodology. The quarters of the kingdom defined in 1546 are recognisable in the quarters described in 1639 although the former did not include the highlands.¹³⁸ In 1627 the kingdom was divided into five for the purposes of coastal defence and in 1639 the first division made was of the shires north and south of the Tay.¹³⁹ In the main Acts of Parliament establishing shire committees of war between 1643 and 1649, the number of committees varied between 19 and 29, which meant committees did not always mobilise men from the same areas.¹⁴⁰ In Scotland there was also a significant number of regiments and smaller units which had no geographical link at all and who actively recruited in shires and burghs where committees of war were attempting to mobilise their own levy quotas. These units, noted above and examined in Chapters 4, 5 and 6 clearly did not conform to the boundaries of military districts, new or otherwise. There is little similarity between Scotland and Sweden in this case.

That the leadership groups in parishes and burghs selected the men who would fill their allocated levy quotas is another practise identified as having been adopted from the Swedish system. The similarity, however, is again superficial. As noted above, in Scotland the local communities chose the men who would march out and they did so in a wide variety of ways ranging from persuasive to coercive. The selection process of the Parish of Tynninghame is a good example of the degree of control which the local community enjoyed. On various days between 19 November and 18 December 1643, ‘the pepill in the toune assemblit about the choosing of the ffourt man, and culd not perfytlie agree’. They did not agree to the extent that after a month they had only chosen 22 of their quota of 25.¹⁴¹ Conversely, in Sweden the

¹³⁷ Leon Jespersen, *A Revolution from Above?: the Power State of 16th and 17th Century Scandinavia*, (Odense 2000), pp. 264-275. Roberts, *Gustavus Adolphus*, ii, pp. 208-211.

¹³⁸ *RPCS 1545-1569*, p. 38. NRS, *GD16/52/19*.

¹³⁹ *RPCS 1627-1628*, pp. 91-92. Laing, *Baillie*, i, p. 192. W MacGill, *Old Ross-shire and Scotland*, (Inverness 1909), pp. 216-217.

¹⁴⁰ *RPS, 1643/6/92, 1644/6/225, 1645/11/197, 1646/11/32, 1646/11/34, 1646/11/532, 1648/3/79, 1649/1/133*.

¹⁴¹ NRS, *CH2/359/1*.

local community had no such control of selection, although the actual degree of influence they had remains a matter of scholarly debate. What is not disputed, however, is the number of crown appointed commissioners who descended on a parish or hundred to conduct the *utskrivning* or conscription. These could include the military commander of the district, the governor, judges, lawyers and officers from the regiments in whose recruiting area the conscription took place. These worked with the parish minister, the bailiff and a local court member to select the men in a single day. Whoever exerted the most influence or authority matters little, for this did not reflect the various systems of local selection adopted in Scotland.¹⁴²

Gustavus Adolphus formed a permanent artillery regiment which was one of the defining artillery reforms in the Swedish forces. It consisted of ‘four companies of gunners, one company of “fireworks” (ie bombs, grenades, petards and other explosive devices) and one of sappers: one of the gunner companies (and it was much the largest) was exclusively for the service of those “regiment-pieces”’. This formed the basis of the train of artillery which in 1630, for example, consisted of ‘72 guns [which] needed something over 100 waggons and 1000 horses’.¹⁴³ The Covenanters did not emulate this in any way, but instead raised a train of artillery as part of the mobilisation for a campaign, which encompassed a multitude of functions other than artillery, as discussed above. Rather than being similar to a Swedish train, the surviving records show striking similarities in terms of the mobilisation, composition and functions, between of the Covenanters’ artillery train in 1644-46 and Essex’s train in 1642-46, neither of which was based on a permanent artillery regiment.¹⁴⁴ The Covenanters did, however, adopt the Swedish practise of making light regimental guns an integral part of their infantry regiments (see Chapter 6), although this was discontinued when James Wemyss became the general of artillery in 1649.¹⁴⁵ Alexander Hamilton undoubtedly served as a vector for Swedish influence in this case, but Covenanter artillery was also influenced by forces closer to home. The Covenanters conformed to common European practice: they did not adopt the Swedish artillery’s permanent regimental system.

Conclusion

A recognisably Covenanter recruiting and mobilisation system emerged over the course of the Bishops’ Wars, built on foundations which were demonstrably Scottish. Those foundations were clearly seen from March 1638 onwards when the nobility and gentry in the shires formed ad hoc committees to plan and oversee military preparations.¹⁴⁶ The parallels between this activity and the military preparations of

¹⁴² Jespersen *A Revolution from Above*, pp. 264-275. Roberts, *Gustavus Adolphus*, ii, pp. 208-211.

¹⁴³ Roberts, *Gustavus Adolphus*, ii, pp. 223-225, p. 230.

¹⁴⁴ Terry, *Papers Relating to the ASL&C*. Marsh Simon, *The Train of Artillery of the Earl of Essex*, (Romford 2016, 2022).

¹⁴⁵ *His Maiesties passing through the Scots armie*, p. 4. RPS, 1649/5/220.

¹⁴⁶ Fraser, *Sutherland Book*, ii, pp. 169-170. Innes, *Black Book of Taymouth*, pp. 391-392.

1626/27 are very clear, and indeed many of the same people were involved, although political machinations in the 1620s may have reduced the amount of useful experience they gained. The system was formalised, on paper at least, by January 1639 and with some relatively minor adjustments remained in place until 1651.¹⁴⁷ Although mobilisation and recruiting were initiated from the centre, it was local efforts and solutions which were essential for success, but this should not be allowed to undermine the importance of the Tables having implemented a relatively homogenous kingdom-wide system. If the leadership in the shires was unenthusiastic, they could make mobilisation a slow and difficult process. The same was true of the Kirk which was integral to the system as presbyteries, parishes, ministers and the pulpit were exploited as secular administrative tools. The system was also a hybrid, with some regiments raised by shire quotas and others recruited by individuals or groups. This produced friction, albeit manageable, caused when the two methods targeted the same men. The failure of the levy quota system in 1641/42 for Ulster, when the shires effectively refused to comply, demonstrates the importance of the consent or compliance of the local leadership groups in making the system work at all. This is reinforced by the fact that the disruption caused by the Kirk and the Kirk Party during the Engager levies only partially achieved their aims, as there was sufficient consent and compliance amongst the local leadership to raise an army.¹⁴⁸

While it was recognisably a Covenanter system, it was an imperfect one. Its basic premise was that it would levy a specified proportion of the fencible population, yet despite ordering numerous audits between August 1643 and June 1650, Parliament and the Committee of Estates, with a single exception, persisted in ordering levies based on the 1643 figures. This actually increased the levy requirement as a proportion of the available manpower, adding to the difficulty mobilising the whole quota. Although, most of the shire committees were criticised for not sitting regularly enough, for ignoring instructions from Edinburgh and simply not raising the required numbers of men, this should not be allowed to obscure their collective success in mobilising men, even if inefficiently. A lot was being asked of the committees which makes poor or uneven performances understandable. From 1640 they faced the new challenge of mobilising for long term deployments outside Scotland; they had to function while civil war was waged around them in Scotland; they faced the difficult task of seeking out deserters, who were usually being hidden by friends and family; and they had to raise troops in a very divided society from the Engagement onwards. Parliament did at least attempt to intervene, if generally ineffectively, to help the committees in their tasks by creating intermediate committees to supervise problem committees or those under most pressure, by appointing leading Covenanters to go and supervise individual shires and by

¹⁴⁷ NRS, *GD297/123*. Gardner, *Hamilton Papers*, p. 17. Innes, *Black Book of Taymouth*, pp. 391-396. Wood, *Burgh of Edinburgh 1626-1641*, p. 205. Marwick, *Burgh of Glasgow i*, p. 390, p. 483. Stevenson, *Presbytrie Booke of Kirkcaldie*, p. 135.

¹⁴⁸ Fraser, *Sutherland Book*, ii, pp. 169-170. Innes, *Black Book of Taymouth*, pp. 391-396. NRS, *GD297/123*. Gardner, *Hamilton Papers*, p. 17. Wood, *Burgh of Edinburgh 1626-1641*, p. 205. Marwick, *Burgh of Glasgow i*, p. 390, p. 483. Stevenson, *Presbytrie Booke of Kirkcaldie*, p. 135.

authorising regiments to send their own officers to apprehend their own deserters. The greatest flaw in the Covenanter system, however, was the lack of an efficient and routine process which kept existing regiments up to strength. There were only three levies which were intended specifically to do this during the whole period and although there were other Acts in 1645 and 1646 to deal with specific regiments, there was clearly no long term policy being applied.

The Covenanter system for mobilising manpower was effective inasmuch as it generated numerous armies, albeit of varying quality, over more than a decade, despite the growing number of challenges it faced. Many individual regiments were understrength from the outset and lack of reinforcements meant that they grew weaker over time, which is not an indicator of an efficient system. The shire and presbytery committees of war often struggled as multiple interventions on the part of parliament and the Committee of Estates attest. Neither, it must be added, was Parliament or the Committee of Estates adept at bringing the shire committees to heel or providing them with effective support. The tale of the levies of late 1643 and early 1644 is more one of struggle and muddle than one of the efficient operation of a well-established system. Having learned from the mobilisation experiences of 1639-1642 the levies of 1643 and 1644 should have been the exemplars of Covenanter mobilisation, notwithstanding the difficulties which had to be overcome. Instead, the weakness of the system was demonstrated by the shortfall in both levies. That Leven might have worried, while sitting at Duns Law in 1639, that 'if the Scotch army be beaten, they will hardly be able to draw another army into the field', is understandable given the ad hoc methods used to create and sustain the army. That he should find himself in 1645 unwilling to commit to operations on any great scale because of the 'impossibility for them to recruit [the army], should [it] receive a loss', demonstrates an inefficient and badly flawed system which was not fit for purpose.¹⁴⁹

¹⁴⁹ *CSPD 1639*, pp. 50-51. *HMC, Thirteenth Report, Duke of Portland*, p. 265.

Chapter 3 - Training

Introduction

This chapter demonstrates that, in Scotland in 1638, there was sufficient understanding of the importance of training as part of the mobilisation process and of the theory and practice of training delivery to start training without external assistance. This is a significant departure from the historiography which overlooks the fact that there were already veterans in Scotland as discussed in Chapter 1. The scope of training in 1638/39 was deliberately limited to make it achievable, which is clear from the very basic requirements of the Covenanter's drill book of 1638.¹ The Covenanter training system was rooted in traditional methodology such as wappenschaws, which as early as 1540 had specific and mandated (if limited) training requirements.² It also drew on the medieval Scottish *Communis Exercitus* or Common Army which consisted of a levy of 'every able-bodied man between the ages of sixteen and sixty'.³ This was modernised by formalising the requirement through the intent to organise the entire fencible population into regiments which would train regularly, rather than training infrequently in ad hoc groups at wappenschaws.⁴ The impetus and direction for this came from the governance provided by the Tables which was essential in setting such requirements. In common with the training regimes of other armies of the period, however, the proposed system was imperfect. The importance of this chapter is that it significantly revises the understanding of the level of military knowledge in Scotland in 1638, identifies for the first time both the role played by veterans who were already in the community and the mixed effectiveness of the system itself.

As outlined in the introduction, the historiography makes clear that training was a key factor in generating capability and that in defeat a lack of adequate training was often a contributory factor.⁵ Recalled veterans are credited with having been the catalyst which initiated training before the First Bishops' War, bringing up to date military knowledge to a population generally lacking in military experience.⁶ Drill books and high quality instructors are correctly identified as necessary to achieving standardisation in drills and making training more efficient. This in turn allowed for faster mobilisation and ensured that the men were trained well enough to execute the more demanding modern tactics. The historiography describes the continuing need for training once an army had assembled, implying a progression from individual to collective training.⁷ Two particular cases of weakness are emphasised

¹ *Rudiments of Military Discipline*.

² RPS, 1540/12/34.

³ Ranald Nicholson, *Scotland The Later Middle Ages*, (Edinburgh 1974), p. 48.

⁴ NRS, GD16/52/19, PA7/2.

⁵ Inter alia. Buchanan, Aikman, *Scotland*, iv, p. 180, p. 212. Kenyon, Ohlmeyer, *Civil Wars*, p. 44. Stevenson, *MacColla and the Highland Problem*, pp. 126-127, p. 132. Reid, *Dunbar 1650*, (Oxford 2004), p. 27. Corsar, *Leslie's Defence of Edinburgh*, pp. 104-105. Young, Holmes, *English Civil War*, p. 307.

⁶ Inter alia. Wedgwood, *King's Peace*, p. 257. Furgol, *Regimental History*, p. 2. Stevenson, *Revolution*, pp. 130-131. Grosjean, *Unofficial Alliance*, p. 188. Gentles, *English Revolution*, pp. 13-14. Macinnes, *Covenanting in the Seventeenth Century*, p. 484.

⁷ Carpenter, *Military Leadership*, p. 53. Carlton, *Going to the Wars*, p. 66, pp. 74-75. Donagan, *War in England*, p. 286. Murdoch, *Scotland and the Thirty Years' War*, p. 129. Parker, *Military Revolution*, p. 202.

which were that the levies sent against Montrose and MacColla in 1644/45 were inadequately trained, as were those raised after Dunbar in 1650/51, although there is little consideration of why this was so.⁸ The majority of the analysis of training in the historiography is abstract and does not consider how training was actually delivered. In most cases training is simply described as being delivered or lacking and is therefore a black box to be broken open.

Sources and Methodology

There are numerous sources which refer to training, from Acts of Parliament setting the requirement, to burgh and parish records recording the employment of drillmasters and schedules for training. That these were implemented is attested to by intelligence reports and diary entries recording the frequency of training and burgh councils imposing fines for failure to attend. It is also clear from the numerous drill manuals of the period and from the methodology of cascading instruction, that the theory and practice of training was clearly understood. This must be caveated, however, by the fact that there is no evidence of any assurance of the quality of training, except for performance in battle. Yet despite evidence for when and how often training was to be conducted, there are no descriptions of any training events. As important a limitation is that almost all the evidence concerns infantry, with a dearth of detail on cavalry and artillery training. The range of sources available and the strengths and weaknesses of the evidence within in them broadly mirrors those available when considering Royalist or Parliamentary training regimes, with which useful comparisons may be made.

The amount of training conducted in each Covenanter mobilisation timeline, particularly that of the ASL&C for which there is the most evidence, can be estimated by analysis of a number of factors. These include the appointment of officers or drillmasters, the availability of weapons and training schedules. A more important factor is how long before the date of the army's rendezvous men were selected for service. When such a selection was made late in the timeline, the companies and regiments intended for the army could not have trained as units before marching to the army. They would have been loosely organised groups of individuals trained to different standards, who, in many cases, would hardly have known each other, a combination which would not have boded well for battlefield performance. The effectiveness of Covenanter training will be considered in the assessment of the effectiveness of infantry, cavalry and artillery in Chapters 4-6.

⁸ Buchanan, Aikman, *Scotland*, iv, p. 180, p. 212. Kenyon, Ohlmeyer, *Civil Wars*, p. 44. Stevenson, *MacColla and the Highland Problem*, pp. 126-127, p. 132. Reid, *Dunbar*, p. 27. Corsar, *Leslie's Defence of Edinburgh*, pp. 104-105. Young, Holmes, *English Civil War*, p. 307.

Contemporary Understanding

It is evident from the military text books printed during the first half of the seventeenth century that the European military community had a comprehensive understanding of both the need for training and the nature of that training. William Barriffe's *Military Discipline* was first published in 1635 and five further editions followed in 1639, 1643, 1647, 1657 and 1661. It has been described as 'one of the most widely used manuals of the Civil War'.⁹ Tellingly, Barriffe included the observation that 'no man is born a Souldier, neither can any attain, to be skilful in the Art Military without practice'.¹⁰ Captain Nathaniel Burt who called Barriffe his 'honoured fellow-souldier and acquaintance', described the manual in 1644 as 'as yet unparalleled in any language'.¹¹ Another popular manual, by Henry Hexham who was serving in an English regiment in the Netherlands, was published in three volumes in 1637, 1638 and 1640 and immediately reprinted as a single manual in 1640. In his dedication to the earl of Holland, Hexham described a clear progression from individual weapons training to collective training at first company then regimental levels.¹² Monro described a similar progression from individual to collective training in his *Expedition* of 1637, as did Turner, writing in 1683, both of whom were prominent Covenanter officers.¹³ That such understanding also existed in Scotland is evident from two further manuals, both published in Edinburgh in 1627 and 1629: Sir Thomas Kellie's *Pallas Armata* and James Achesone's *Military Garden*. The training content of both was the same as that of Barriffe, Hexham, Monro and Turner.¹⁴ Two further documents are directly linked to Covenanter forces. The first was an anonymously authored drill book published by James Bryson in 1638 and the second was a manual which was published as Alexander Leslie's training guidance in 1642.¹⁵ Again, everything in these texts can be found in the existing body of work on which they undoubtedly drew, and Leslie's is identical (but for the title) to another drill book also published in 1642 in London.¹⁶ This demonstrates that Scotsmen had access to up to date military writing and participated in its production and dissemination, providing them with a starting point for training that was common to other contemporary armies.

These publications were widely used both before and during the Wars of the Three Kingdoms, making it highly unlikely that Covenanter officers were unaware of them, particularly those who had served in the Netherlands. Even if this were not so, the publications which were undoubtedly in circulation in Scotland in the same period contained common material. It is also likely that the books were in circulation in large numbers: in 1633 Glasgow's council purchased 220 copies of Achesone's drill

⁹ Barratt, *Cavaliers*, p. 6.

¹⁰ Barriffe, *Military Discipline*, p. 1.

¹¹ *Militarie Instructions by Captaine Nathaniell Burt*, Letter dated 05 June 1644.

¹² Hexham Henry, *Principles of the Art Militarie*, (London 1637).

¹³ Monro, *Expedition*, pp. 183-192. Turner James, *Pallas Armata*, (London 1683), p. 209.

¹⁴ Kellie Thomas, *Pallas Armata*, (Edinburgh 1627). Achesone, *Military Garden*.

¹⁵ *Generall Lessley's Direction and Order for the Exercising of Horse and Foot*, (London 1642).

¹⁶ RM, *A Compleat Schoole of Warre*, (London 1642).

book, with a copy to be purchased by each man on being made a burges.¹⁷ The availability of the printed word cannot, however, be assumed to be a training panacea: there is a risk in assuming that theory was meticulously implemented in practice. Many of the longer drill manuals, such as Barriffe's, included very complicated movements for companies and regiments and formations such as the 'hollow cross' and the 'convex half-moon'. Such geometric exercises would have been beyond the ability of all but the most experienced troops and would even then have been of very questionable utility. It is clear that enough Covenanters fully understood, before the recall of veterans, the need to train and further, that training should be incremental in scale and its aims both practical and achievable.

Training Requirement

The importance of the Tables' adoption of the executive function of government in very unusual political circumstances is clearly demonstrated in their providing direction and coordination of the Covenanting movement's early mobilisation efforts. As noted in Chapter 2, the Tables in mid-1638 ordered an audit of the shires' and wappenschaws were duly held across Scotland including in Aberdeen, Argyllshire, Dumbarton, Dunfermline, Glasgow and Kirkcaldy between July and November.¹⁸ Although this initial requirement did not include training the fencible population, the audit of manpower and weapons clearly implied that training was the next step. Training began as early as May 1638 in Fife and was increasingly widespread in Scotland from July onwards.¹⁹ The instructions from the Tables were to focus on the selection and training of the men who would constitute the first levy and who, when trained, could themselves act as instructors.²⁰ In Glasgow for example, 60 men were initially selected for training in September out of a fencible population of some 800 men.²¹ It is likely that training in 1638 consisted of basic weapon drills and very little else. Apart from the limited availability of weapons with which to train, the Covenanters would not have had time to address fundamental questions concerning their preferred tactical systems and the structures required to execute them, knowledge of which would have been needed to design training. The infantry being the vast majority of the Covenanters' forces, armed with pike and muskets where available, basic weapons training would have provided ample work for the drillmasters in 1638.²²

Training featured prominently in the instructions issued by early January 1639, primarily concerning the infantry, showing that its importance as a basic component of military capability was

¹⁷ Marwick, *Burgh of Glasgow*, ii, p. 15.

¹⁸ Stuart, *Burgh of Aberdeen 1625-1642*, p. 133. Innes, *Black Book of Taymouth*, p. 398. NRS, GD112/39/67/8. *Dumbarton Burgh Record*, p. 55. Shearer, *Records of Dunfermline*, p. 206. Marwick, *Burgh of Glasgow*, i, p. 389. Stevenson, *Presbytrie Booke of Kirkcaldie*, p. 135.

¹⁹ Innes, *Black Book of Taymouth*, p. 396. HMC, *Manuscripts of the Duke of Hamilton*, p. 96. Marwick, *Burgh of Glasgow* i, p. 391, p. 483. Stuart, *Burgh of Aberdeen 1625-1642*, p. 140. Stevenson, *Presbytrie Booke of Kirkcaldie*, pp. 140-141. Knowler, *Strafforde's Letters*, ii, p. 271.

²⁰ NRS, GD16/52/19.

²¹ Marwick, *Burgh of Glasgow* i, p. 391.

²² RPS, 1598/6/16, 1599/12/2. Knowler, *Strafforde's Letters*, ii, p. 271.

understood. It is noteworthy that, except in terms of scale and the level of ambition, the training methodology was well known and represented continuity, not change. Shire committees were to organise the training of their fencibles, veterans were to be employed as drillmasters, men were to be centrally trained in each shire so that they could then go home and train others, the use of the Bryson drill book was mandated to ensure commonality of training and the shires were to employ artillerymen to train more gunners.²³

The instructions also defined who was to be trained and what they were to be trained to do, although the latter only for the infantry's more junior ranks. The 'who' was the entire fencible population but initially prioritising the men who would deploy in the first levy over those who would stay at home for local or coastal defence. The stated purpose of organising the fencibles into companies and regiments was to enable 'ordinarie exercising', i.e. routine training. What they were to be trained to do, for the infantry, was defined by the Bryson drill book whose title page stated that it contained only 'the most necessary postures [...] and motions'.²⁴ This language was so close to that of the Tables' instructions which required training to include only 'the necessar postures [...] and most needful motions', that they were unlikely to have been produced in isolation.²⁵ A kingdom wide wappenschaw was organised for 28 January 1639, not least to confirm weapons holdings following the purchases over previous months, but also because mobilisation plans were by then in place.²⁶

While wappenschaws were not necessarily training events, they enabled training as officers and drillmasters were appointed to organise them and the output was a list of the fencibles to be trained. From that, it was a short step to scheduling musters in order to conduct training according to local arrangements. Low level training was organised by drillmasters or quartermasters which was a well-established practice in Scotland. As noted in Chapter 1, this was a role in which veterans of the European wars had at times been employed during the 1620s and 1630s (see Table 3.1 below). Training solutions were locally driven: it was up to the shire committees or the burgh councils to decide how often training took place and up to the drillmasters or locally appointed officers to decide what training was conducted on any given day. In August 1643 the frequency was formalised in legislation by the Convention of Estates which required weekly company or troop training and monthly regimental training.²⁷ Similarly, in January 1644 an Act was passed mandating the employment of 'an able and expert soldier' by each shire.²⁸ Local solutions still dominated, however, meaning that men were inevitably being trained to different standards. The royal burghs enjoyed no special treatment during mobilisation with the exception

²³ NRS, GD16/52/19, PA7/2. Hardwicke, *State Papers*, ii, p. 124.

²⁴ *Rudiments of Military Discipline*.

²⁵ NRS, GD16/52/19.

²⁶ CSPD 1638-1639, p. 357.

²⁷ *Act of the Convention of Estates*, 26 August 1643.

²⁸ RPS, 1644/1/11.

of their training regimes. At least two Acts of Parliament (August 1643 and April 1648) made the burghs responsible for their own training and they were not 'obliged to keep other places of mustering in the shire until the regiments of that division where the burgh lies be called to march or go upon service'.²⁹ This made regimental training problematic, if not impossible, for any regiments which included contingents from the burghs. The base level of training which men received before their regiment mobilised was therefore both limited and uneven making further training necessary before they were ready for battle.

Until the Bryson drill book was produced sometime in 1638, the publications most likely to have been used by the Covenanters were, as noted above, Achesone's and Kellie's drill books, both of which were published in Edinburgh. Kellie's book is dedicated to the earl of Rothes, so the earl is likely to have had a copy, and Balcarres definitely owned one. Both men being Covenanter commanders in the First Bishops' War (although Balcarres commanded cavalry which neither writer considered), it is likely that Kellie's book was being used.³⁰ Acheson wrote in the dedication that he was publishing what he had been teaching as Edinburgh's drillmaster, which must have included instructing Edinburgh's fencibles. Glasgow's purchase of 220 copies in 1633 demonstrates that the drill book was certainly in use.³¹ These two books are important because both writers advocated the use of the regimental formation consisting of a single central block of pikeman flanked on each side by musketeers which was commonly used in Europe. The main advantage of this is that it is a simple deployment option requiring much less training and fewer inferior officers to execute than the Swedish Brigade formation. However, although simpler, training was still required, not least because companies were broken up to form such a regimental formation risking confusion in untrained men. The Bryson pamphlet was too concise to include regimental formations, but the descriptions given by Kellie and Achesone are very similar to those in Alexander Leslie's training instructions of 1642. This suggests that this was the formation adopted by the Covenanters in 1639 and it was therefore something that men had to be trained to do. The Bryson book was the starting document, detailing the individual weapons drills and simple company level manoeuvres which were part of the training requirement. The key deduction to be made from this is that the local training requirement was kept as simple as possible in 1639 to ensure that it was achievable, resulting in considerable work still to be done once the army had assembled.

Population density would have influenced, if not dictated, how often whole companies or multiple companies could gather to train, but an advantage of the widespread distribution of a simple drill book was that men could train in small groups in their burgh or parish. Strafford received intelligence reports of

²⁹ RPS, 1643/6/91, 1648/3/79.

³⁰ Keith Brown, *Noble Society in Scotland*, (Edinburgh 2000), p. 2. Nicholas Barker, *Bibliotheca Lindesiana The Lives and Collections of Alexander William 25th Earl of Crawford and 8th Earl of Balcarres [etc]*, (London 1978), p. 19.

³¹ Marwick, *Burgh of Glasgow*, ii, p. 15.

travelling drill masters ‘calling all the Inhabitants of two or three towns together’ in the latter part of 1638 which would support there only being occasional larger scale training opportunities.³² With the exception of Monro’s regiment, which mustered early and remained in the field until after the Pacification of Berwick (18 June 1639), training at regimental level in 1639 could only have been conducted routinely once men had been called out for the operations in the western highlands and islands, the northeast or to deploy to the border. This would have been little different in the months before the army assembled on the border in the Second Bishops’ War. Leslie’s 1642 pamphlet reflects what must have been a wider understanding of the requirements of operating at regimental level, although the bulk of the text still focusses on the company. The required frequency of training was formalised in Acts of Parliament in 1643, 1644, 1645 and 1648 which, as noted above, mandated weekly company and troop training and monthly regimental training as part of the mobilisation process.³³ This was considered necessary to be prepared ‘to suppress all internal commotions, recruit the army sent forth if need be and defend themselves against foreign invasion’. At various times such as 1639, 1640 and 1645 the evidence (considered below) shows that training was conducted on a daily basis, but this is likely to have been low level drills and certainly not regimental level training.³⁴

Fully and enthusiastically implemented, these training schedules would have produced well trained men, but it is unlikely that this was so. The regiments sent to the northeast in 1639 disbanded after each expedition and, in the case of the burgh of Forfar at least, although some men went on all three, some went on only one or two making opportunities for training and gaining experience more limited than it would appear.³⁵ The forces so often and so easily defeated by Montrose and MacColla performed poorly for men who should have been well trained had they been following the instructions. The northern levies at Alford (July 1645) and the Fife levies at Kilsyth (August 1645), for example, should have been in weekly and monthly training for up to eighteen months followed by daily training for a further five. The manner of their defeats demonstrates that they were very much less well prepared than this. This clearly demonstrates the difference between the mobilised regiments of the field army which functioned as regiments and the un-mobilised ‘reserve’ regiments of the shires which seldom did so. Those men who consented and were enthusiastic about training were mostly in the field armies, with only a minority staying in the shires. The majority in the ‘reserve’ regiments were compliant or coerced being compelled by threats of fines to attend training. The quality of training would have been lessened for all by the lack of enthusiasm of the coerced resulting in badly trained soldiers who performed poorly in battle.³⁶

³² Knowler, *Strafforde’s Letters*, ii, p. 271.

³³ RPS, 1643/6/91, 1644/1/11, 1644/1/67, 1645/1/170, 1648/3/79.

³⁴ CSPD 1638-1639, p. 459. CSPD 1639-1640, p. 584. *At Edinburgh the 28 day of March 1645*, (Edinburgh 1645).

³⁵ NRS, GD205/18/62.

³⁶ Inter alia. *Dumbarton Burgh Records*, p. 57. Shearer, *Records of Dunfermline*, p. 206. Marwick, *Burgh of Glasgow*, i, p. 389. Stuart, *Burgh of Aberdeen 1625-1642*, p. 132.

The training picture is not as clear for cavalry as it is for infantry: there is evidence of the requirement to train, but not of training being conducted. Spalding recorded that on 20 April 1644 the marquis of Huntly ‘causit dreill wp in the lynkis sic men as he had’ which included ‘aughtscoir horss’, but there is not even such slight evidence concerning Covenanter cavalry.³⁷ Robert Ward in *Animadversions of Warre* published in 1639 considered infantry, cavalry and artillery in detail over the course of some 500 pages, but the sole focus of most contemporary publications was infantry training. A short pamphlet was published in London in 1642 which included some very basic cavalry drills, but there were only two contemporary manuals written in English which focussed wholly on cavalry: Cruso’s *Military Instructions* of 1632 and Vernon’s *Young Horseman* of 1644.³⁸ These short manuals (51 and 45 pages respectively) considered the training and employment of cavalry in detail. Cruso’s manual was reprinted in Cambridge in 1644 with an update describing the replacement of the caracole tactic by the shock effect of the charge, an unlikely revision unless the manual was in use. Hexham devoted only a single paragraph to cavalry in his 1638 edition, but he expanded this in 1642, drawing on Cruso’s work to do so and again, there would be little point in the revision if the book were not in use.³⁹

The Covenanters having adopted the troop structure advocated by Cruso, Hexham and Vernon, these cavalry manuals, combined with the methodologies outlined in other works, would certainly have been sufficient to enable troop level training. Covenanter cavalry operated as troops throughout the period and also as regiments from 1643 and from 1644 there were some mixed regiments of harquebusiers, lancers and dragoons.⁴⁰ Cavalry equipment also changed between 1638/39 and 1643, as described in Chapter 5. Both organisational and equipment changes would have affected the training requirement concerning individual weapons skills and the tactics for integrating the three different types of horsemen. As was the case for the infantry, cavalry was required to conduct weekly training as troops and monthly as regiments from 1643.⁴¹ With the exceptions of the use of a light lance and often smaller mounts, Covenanter cavalry was little different to that of its allies and enemies, meaning that the existing publications were sufficient to inform the training requirement. As noted above, however, there is no evidence of training being conducted.

The manner in which artillery was trained would have been significantly different to that of the infantry and cavalry, given that the number of men to be trained was considerably lower and that the number of places where they could be trained was more limited. There was, however, a permanent

³⁷ Spalding, *Memorials of the Troubles*, i, p. 347.

³⁸ *The Military Discipline*, (London 1642). John Cruso, *Military Instructions for the Cavalry*, (Cambridge 1632). John Vernon, *The Young Horseman ... the Exercise and Discipline of the Horse*, (London 1644).

³⁹ RPS, 1645/1/132. Cruso, *Military Instructions*, p. 26. Henry Hexham, *The Second Part of the Principles of the Art Militarie*, (London 1638), p. 37. Vernon, *Young Horseman*, p. 35.

⁴⁰ Furgol, *Regimental History*, p. 8. RPS, 1641/8/234. Firth, *Papers Relating to the ASL&C*, i, p. 136, p. 154.

⁴¹ RPS, 1643/6/91, 1644/1/11, 1644/1/67, 1645/1/170, 1648/3/79.

requirement for trained gunners during peacetime. For the most part this requirement was in the maritime and littoral environments where gunners were required on armed merchant vessels and in coastal towns and burghs which had to be able to defend themselves against attack from the sea. As noted above, in November 1618 the Privy Council of England approved a request from Scottish merchants for 200 cannon to be sent to Scotland to arm the Scots merchant fleet.⁴² This clearly indicates the presence of gunners and, as described in Chapter 6, the skillsets required on land and sea were almost identical. In addition to this there was a small number of gunners who were permanently employed in royal fortresses and there were cannons in private arsenals which means that someone at least knew the most basic skills for their use. While there is evidence, therefore, of men who could have been involved in training, there is no evidence of where and how gunners were actually trained.

The requirement was to train men to use cannons to defend fortifications, in sieges and on the battlefield. This included siege guns such as the demi cannon which fired a ball of some 24lbs and weighed some 5000lbs (2268kg) and field pieces such as a demi culverin which fired a ball of some 12lbs and weighed some 3000lbs (1360kg). Covenanter artillery also included bespoke lightweight 12-pounders, small 3-pounder regimental guns (weights unknown) and ‘frames’ which deployed with the ASL&C, which will be considered in Chapter 6. Professional gunners would have been able to use all of these guns as the basic skill sets were the same although the way they were used differed. The bulk of those trained would have only been trained to assist in using a single type of gun under the supervision of an expert gunner, making the training requirement more straightforward.⁴³

The gunnery manuals of the period describe gunnery as a very specialised and technical skillset, which would appear to militate against the Covenanters being able to train many gunners quickly, but there was a significant difference between complicated theory and simpler practice. As will be examined in Chapter 6, the science underpinning gunnery before Galileo’s ballistic theory and the advent of Newtonian physics, was ‘egregiously fallacious, and utterly irreconcilable’ with what actually happened when a cannon was fired.⁴⁴ The simple fact was that cannons were so inaccurate at this time that the ‘art’ of gunnery consisted, with few exceptions, of engaging targets at point blank range or even closer if possible. This was true both of the cannons in the artillery train and the regimental guns which were integral to the infantry regiments. This made gunnery so simple that it significantly reduced the difficulty of training enough men. Although there were enough artillery drill manuals available there is no specific evidence of artillery training having taken place.⁴⁵

⁴² *Acts of the Privy Council of England 1617-1619*, (London 1929), p. 299.

⁴³ Inter alia. Ward, *Animadversions*, pp. 107-109.

⁴⁴ Hall, *Ballistics*, p. 50, p. 52. Benjamin Robins, *New Principles of Gunnery*, (London 1742), p. xlii.

⁴⁵ Ward, *Animadversions*, pp. 118-122. Henry Hexham, *The Third Part of the Principles of the Art Militarie*, (Delft 1640), pp. 13-15. Robert Norton, *The Gunners Dialogue*, (London 1628), pp. 17-18. William Eldred, *The Gunners Glasse*, (London 1646), pp. 44-45.

Instructors

A key element of the Covenanter training system was the use of drillmasters, although they were neither a Covenanter innovation nor unique to Scotland. Turner, writing about the training system of the Roman Empire, said of their professional trainers that ‘they were as our Drill masters in Towns or Counties’ which suggests that drillmasters were commonplace in Scotland. Table 3.1 shows confirmed drillmaster activity in Scotland between 1626 and 1650, but the source base is narrow making it unclear how widespread such employment was. Only one of the pre-1638 drill masters in the table was recorded as being a veteran of European service, but it is likely that veterans were employed in this role whenever they were available. Where the ranks of these drill masters were recorded, most were captains and below, which is appropriate for drilling individuals and training groups up to company level. The Tables’ instructions in late 1638 explicitly required shires to employ veterans as drillmasters and to implement a cascade system where the drillmasters trained men so that they could go and train others⁴⁶. As is discussed in Chapter 1, veterans were retained on half pay over the winter of 1639-1640 in order to train men in the burghs and shires and there were at least nine such teams.⁴⁷ From 1644 every shire was required by an Act of Parliament to employ a drillmaster, which suggests that sufficient candidates were available, although it is not proof that every shire permanently employed one.⁴⁸

Evidence for Shires or Burghs Employing Drillmasters Including Veterans.	
1626	Aberdeen, Edinburgh.
1627	Edinburgh.
1628, 1630, 1631, 1632	Edinburgh, Glasgow.
1633	Edinburgh.
1638	Travelling teams to multiple shires. Argyllshire, Dumfries, Dunfermline, Glasgow.
1639	Aberdeen, Ayrshire, Dumbarton, Dumfries, Dumfriesshire, Dunfermline, Elgin, Fife, Glasgow, Kirkcaldy, Kirkcudbright, Perth.
1640	Ayrshire, Banff, Dumfriesshire, Fife, Glasgow, Kirkcudbright, Lanarkshire and part of Cunningham, St Andrews.
1644	All shires required to employ drillmasters. Aberdeen, Dundee, Edinburgh, Inverness.
1645	All shires required to employ drillmasters. Edinburgh.
1646	All shires required to employ drillmasters.
1650	Edinburgh. Paisley.
Table 3.1⁴⁹	

⁴⁶ NRS, GD16/52/19, PA7/2.

⁴⁷ Stuart, *Burgh of Aberdeen 1625-1642*, pp. 193-195. Marwick, *Burgh of Glasgow i*, p. 483. Stevenson, *Booke of Kirkcaldie*, p. 179. Nicholson, *Minute Book*, p. 7. NRS, GD3/9/3/2. Fraser, *Memorials of the Montgomeries*, pp. 240-241, pp. 292-293. Fraser, *Annandale Family Book*, i, pp. 187-188.

⁴⁸ RPS, 1644/1/11.

⁴⁹ Stuart, *Burgh of Aberdeen 1625-1642*, pp. 03-04, pp. 10-11. Wood, *Burgh of Edinburgh, 1604-1626*, p. 304, 1626-1641, p. 33, p. 41. Anderson, *Burgesses and Guild Brethren*, p. 70. *Glasgow Council, Memorabilia of the City*, p. 66. Marwick, *Burgh of Glasgow i*, p. 391, pp. 399-400, p. 412, p. 483, 1630-1662, p. 503. Reid, *Dumfries Accounts*, p. 338. Innes, *Black Book of Taymouth*, p. 396. Shearer, *Records of Dunfermline*, p. 206. Fraser, *Memorials of the Montgomeries*, i pp. 240-241, ii pp. 292-293. *Dumbarton Burgh Records*, pp. 56-57. Fraser, *Annandale Family Book*, i, pp. 187-188. Shearer, *Records of Dunfermline*, p. 206. Cramond, *Records of Elgin*, i, p. 263. Nicholson, *Minute Book*, p. 7. William Cramond, *The Annals of Banff*, (Aberdeen 1891), i, p. 86. MacBean, *Kirkcaldy Burgh Records*, p. 160. Marshall, *History of Perth*, p. 181. NRS, GD3/9/3/2. CSPD 1640, p. 63. RPS, 1644/1/11. William Metcalfe, *A History of the County of Renfrew*, (Paisley 1905), p. 271.

While one man would suffice for burghs with a small fencible population, that would not be the case for whole shires and larger burghs. The greater the number of men to train and the lower their levels of knowledge and skill, the more trainers would have been required, at least at the outset. The solution lay in the well proven system of training officers to train their own men with or without supervision from a drill master. In January 1626, ‘serjeants from the Low Countries, being in number 117, landed at Gravesend’ for the express purpose of training the Trained Bands across England.⁵⁰ In order to do so, they were given explicit instructions to give additional training to the locally appointed sergeants and corporals so that they, with their officers could ‘exercise their Companies when the Sergeants be gone out of the Countrey’⁵¹. It is possible that some of these men were Scots, but the Scots in service in the Netherlands would certainly have been aware of the initiative. It is unlikely to have been a coincidence that in Aberdeen in the same year, a similar system was implemented: 24 men were selected from the burgh ‘to be dreill maisteres under the said Johne Urrie’ who was given the title of ‘Master generall dreill maister’.⁵² It was logical, therefore, for the Covenanters to use the same model before the First Bishops’ War.⁵³

Training regimes continued to be determined at the local level which meant there was no single model. That Parliament was content for it to be so is seen in an Act of January 1644 that authorised the shire committees ‘to take such course for inferior officers and sergeants as may best, with least expense, exercise their men’.⁵⁴ In Dunfermline, where James Hamilton was the drillmaster from at least November 1638 to November 1639, seven company level officers were appointed to run the training of the fencible population of approximately 100-150 men in May 1639. The following year 13 quartermasters were appointed to enforce attendance at training sessions.⁵⁵ In Glasgow on 20 April 1639, a captain and 2 sergeants were appointed for each of the burgh’s eight companies to ensure that the ‘burgessis and inhabitantis [were] trainit vp and exercisit in handling of thair armes’. By late May 1639 a different pair of the burgh’s companies were training each day from Tuesday to Friday overseen by Harie Gibsoun, the burgh’s drillmaster.⁵⁶ In contrast, the shire committee of Forfar in January 1639, decided that men should not be ‘put under Capitans and Collonells [but] that evrie man should dreill his owne’, that is to say the heritors putting out men should be responsible for training them.⁵⁷ This was an odd decision, which prevented assembling the men in companies and building team spirit, but it underlines the lack of a single system. The remit of the drill masters who were reported by Strafford as going ‘up and down the Country

⁵⁰ CSPD 1625-26, pp. 229-230.

⁵¹ *Orders Appointed by His Most Excellent Majesty*, (London 1626).

⁵² Stuart, *Burgh of Aberdeen 1625-1642*, pp. 10-11.

⁵³ NRS, GD16/52/19.

⁵⁴ RPS, 1644/1/11.

⁵⁵ Shearer, *Records of Dunfermline*, p. 219, p. 222, p. 230. Ebenezer Henderson, *The Annals of Dunfermline*, (Glasgow 1874), p. 304, p. 312.

⁵⁶ Marwick, *Burgh of Glasgow i*, pp. 399-401.

⁵⁷ NRS, GD406/1/769.

exercising their Men' must have included training company officers to train their own men.⁵⁸ Similarly, when ministers in the Presbytery of Lanark were told in May 1640 to tell their parishioners 'to be ready to exercise ther armes whensoever [the] Lord Collonell shall send officers to that effect', the officers in question can reasonably be assumed to have been drillmasters or to have been accompanied by one. There may have been a variety of solutions according to local conditions and it is likely that standards varied, but there was a common basic methodology of employing drillmasters or appointing quartermasters to conduct training.

By 1640 company officers had become responsible for training once the army assembled. The army's regulations for 1640 included in Article 6 a new provision which stated that 'Captaines that shall be negligent in training their Companies [...] shall bee discharged of their place, and further censured by the court of warre'.⁵⁹ This is consistent with the attitude of veterans such as Monro and Turner, who believed that officers should train their own men, with the latter believing that a captain who did not do so, 'Uncaptains himself'.⁶⁰ By late 1645 there were permanent garrisons 'in Inverness, 1,000 foot, two troops of horse; in Aberdeen, 1,000 foot, two troops of horse; in Montrose, 200 foot; in Dundee, 400 foot; in Perth, 400 foot; in Stirling and the castle thereof, 300 foot, one troop of horse; in Glasgow, 800 foot, one troop of horse' whose officers would have led on military matters, including training.⁶¹ In February 1649 thirty officers, ranging in rank from colonel to lieutenant, were allocated to the shires to work for the shire committees. One task was to 'drill and exercise all the fencible persons', although they were also 'to be in readiness upon all occasions to do everything for the right ordering of the said shire' according to the orders of the shire committees and colonels.⁶² By August 1650, however, the system was struggling, with Wariston highly critical of the lack of training taking place in the army which must, at least in part, have been due to the loss of experienced men to purging. The loss of 40% of the infantry's majors, captains, lieutenants and ensigns who were captured at Dunbar, with an unknown additional number killed, can only have further degraded the system, even with a subsequent policy change to allow more veteran officers to rejoin the army. This basic model of employing drillmasters, however, continued to be used until the occupation of Scotland by Cromwell's forces.⁶³

Officers may have been responsible for training their men, but officers above the rank of ensign were frequently absent from their regiments, particularly from 1644 onwards. This was typical of the

⁵⁸ Knowler, *Strafforde's Letters*, ii, p. 271.

⁵⁹ *Articles and Ordinances of Warre*, (Edinburgh 1640).

⁶⁰ Monro, *Expedition*, pp. 183-192. Turner, *Pallas Armata*, pp. 210-212.

⁶¹ RPS, 1645/11/61.

⁶² RPS, 1649/1/87.

⁶³ Fleming, *Wariston 1650-1654*, ii, p. 7. Wood, *Burgh of Edinburgh 1642-1655*, p. 236. Marwick, *Burgh of Glasgow ii*, p. 188. Stevenson, *Scotland under the Covenanters*, p. 119. Metcalfe, *History of the County of Renfrew*, p. 271. Stuart, *Burgh of Aberdeen 1643-1747*, p. 114. MacLeod, *Royal Letters*, p. 258. *A true relation of the routing the Scottish army near Dunbar*, (London, Sept 9, 1650).

period, however, with both Royalist and Parliamentary armies encountering similar problems.⁶⁴ The Covenanters' army regulations of 1639, 1640, 1642, 1643, 1644 and 1650 all included articles permitting authorized absences for all ranks, but from 1640 it was an offence for any man to 'stay behinde the time appointed him in his Passe'.⁶⁵ This indicates that overstaying furloughs was commonplace. Given that authorised absences could be for several months at a time, such behaviour would have left regiments understrength in officers for considerable periods of time.⁶⁶ In January and February 1644 Acts of Parliament noted that despite the ASL&C having already crossed the border into England, 'many of the officers do lie lingering behind, to the [...] prejudice of the present expedition'.⁶⁷

The absence of officers in early 1644 must be considered in the context of the mobilisation timeline. With officers and men selected at the last minute and many men lacking weapons until February or March, the regiments cannot have been uniformly well trained and they were certainly not ready for battle. By July 1644 The Committee with the Army wrote to the Committee of Estates asking for the return of 'the multitude of absent officers who, contrary to their duty, so long desert their charges'.⁶⁸ Another letter in September noted that there was still 'great want of officers' in the army.⁶⁹ By 1648, authorised absences longer than a month had been prohibited.⁷⁰ Perhaps the most egregious example of officers lacking commitment to their men came at Dunbar in 1650 where the defeat, as David Leslie wrote, was partly 'because the officers did not stay by their troops' overnight.⁷¹

Artillery could only be partly mobilised by levying the shires for resources and it therefore required a more centralised training model. The guards, pioneers and baggage men for the train were levied in the shires and it is likely that, as all were fencibles, they would have continued to train at home until the artillery train assembled. In 1639 the shires were told to enlist gunners to train new gunners, but by 1640 the gunners were centrally employed, suggesting that training was also conducted centrally in that year.⁷² As noted above, there were gunners in the maritime community from which instructors would have been drawn. For the king's visit to Edinburgh in 1633, 24 gunners from Leith were employed in preparing and firing salutes;⁷³ in 1639 towns and burghs on the Forth were fortified and armed with ships' cannon, to which end Aberdeen employed 'James Hamiltoun, cannonier';⁷⁴ 'James Ramsay, mariner

⁶⁴ Inter alia. James Larkin, *Stuart Royal Proclamations*, (Oxford 1983), ii, pp. 931-931. *JHC*, iv, p. 215.

⁶⁵ *Articles of Militarie Discipline*, 1639. *Articles and Ordinances of Warre, By his Excellence, the Lord Generall of the Armie*, (Edinburgh 1640). NRS GD215/1901. *Camp Discipline*, (London 1642). *Articles and Ordinances of Warre*, (Edinburgh 1643, 1644, 1650).

⁶⁶ NRS, GD3/9/5/4/6.

⁶⁷ RPS, 1644/1/68.

⁶⁸ RPS, A1644/6/5.

⁶⁹ Birch, *State Papers of John Thurloe*, p. 50.

⁷⁰ RPS, 1648/3/104.

⁷¹ NRS, GD40/2/4/27.

⁷² Inter alia. NRS, GD3/9/5/5/6, GD3/9/4/2, GD3/9/4/3. Cook, *Annals of Pittenweem*, p. 33. Stuart, *Burgh of Edinburgh 1625-1642*, p. 215. Maxwell, *Old Dundee*, p. 256.

⁷³ Imrie, Dunbar, *Accounts of the Masters of Works*, ii, pp. 386-388.

⁷⁴ CSPD 1639, pp. 189-190. *Accounts of the Burgh of Aberdeen in The Miscellany of the Spalding Club*, (Aberdeen 1852), v, p. 154. Cook, *Annals of Pittenweem*, p. 31. Young, *History of Burntisland*, p. 97. Laing, *Baillie*, i, p. 197.

[was] employed in the chief charge of the artillery' in Dundee in April 1645;⁷⁵ and Edinburgh recruited six gunners from Leith in August 1650.⁷⁶ A proportion must have been enlisted, but they could not all have been available to serve with the train of artillery as they were still required on ships and to defend towns and burghs. It is likely that in such defended places, some men were trained as additional gunners rather than as cavalry or infantry: the fact that there were gunners in such locations in the first place is evidence of training in the past.

In 1639 Ward wrote that 'every piece hath his Gunner, with his Co-adjutor or mate, and a man to serve them both'. Similarly, the establishment of a train raised in February 1647 specified 'six Cannoniers, and six Mates' for six guns. In both cases there were senior gunners supervising a number of guns.⁷⁷ The sources, however, are consistently vague concerning numbers of cannons mounted in the various defensive works, making it impossible to estimate how many gunners were needed. Aberdeen in 1639 had twelve demi-culverins, and in the same year Dumfries had only a single cannon. Edinburgh mounted twelve guns on its walls in 1650 and Dundee had 'about forty iron guns' in 1651.⁷⁸ There were also significant numbers of cannon in private hands, with evidence of this in Hume's estate in Berwickshire (6 or 7), in Balloch and Finlarg (2), Dunnoter (at least 6), Dumfries (1), Strathbogie (at least 4) and other cannons were owned by Argyle (at least 6), Eglinton (at least 2), Andro Balfoure in Edinburgh (4), and William Keir in Leith (2).⁷⁹ Although cannons were intrinsically valuable (the earl of Caithness used 'five peaceis of ordinance of brasse' to pay his debtors in 1624), it is unlikely that cannon would have been owned without there being men who could at least fire them safely if not rapidly and accurately.⁸⁰

Edinburgh Castle had a Master Gunner throughout the period, but permanent employment of other gunners there ceased in 1634, replaced by short term employment for specific tasks, implying their availability when such tasks arose.⁸¹ The earl of Eglinton employed a gunner for four months during the First Bishops' War, indicating that some artillerymen at least were available for employment outside the artillery train or coastal tasks.⁸² There were also gunners employed in Aberdeen who were, in 1639, moved to Edinburgh and Dumbarton on the earl of Traquair's orders, which indicates that they were professionals not local men.⁸³ A gunner was assigned to Dumbarton, two to Perth, one to Strathbogie, two

⁷⁵ Maxwell, *Old Dundee*, p. 501.

⁷⁶ Wood, *Burgh of Edinburgh 1642-1655*, pp. 255-256.

⁷⁷ Ward, *Animadversions*, p. 108. RPS, 1646/11/270.

⁷⁸ Stuart, *Burgh of Aberdeen*, p. 169. Reid, *Dumfries Treasurer's Accounts*, p. 338. Wood, *Burgh of Edinburgh 1642-1655*, pp. 253-254. Henry Cary, *Memorials of the Great Civil War in England*, (London 1842), ii, pp. 351-352.

⁷⁹ HMC, *Supplementary report on the Manuscripts of the Duke of Hamilton*, p. 52. Innes, *Black Book of Taymouth*, p. 398. Gordon, *Scots Affairs*, ii, p. 270. Reid, *Dumfries Accounts*, p. 338. Peter Marren, *Grampian Battlefields: The Historic Battlefields of North East Scotland from AD 84 to 1745*, (Aberdeen 1990), p. 147. Maxwell, *Old Dundee*, p. 439. RPS, 1643/6/40, 1644/1/95, 1644/1/96.

⁸⁰ *RPCS 1622-1625*, p. 394.

⁸¹ Imrie, *Dunbar, Accounts of the Masters of Works*, ii, p. iv, p. 380, pp. 386-388, p. 425, p. 429.

⁸² Fraser, *Memorials of the Montgomeries*, ii, p. 293.

⁸³ Gardner, *Hamilton Papers*, p. 93.

to Stirling, one to the Bog of Gight and four to work directly for the general of artillery in August 1649.⁸⁴ The evidence for artillery training having taken place is slight but is implicit in the number of gunners available in society, the deployment of regimental guns with the infantry and in the employment of the artillery trains raised over the years.

Training Methodology

Before the era of standing armies, which required permanent training infrastructures, most training was conducted once men had been mustered, although there had been attempts to implement regular training in Scotland. In 1540, wappenschaws were linked to subsequent monthly musters for training to be held in every parish and organised by their parish captains.⁸⁵ By the 1620s, however, wappenschaws were rarely held and monthly parish musters not at all, except for some activity in response to the invasion threat in 1626/27.⁸⁶ Nevertheless, in 1638 the Covenanters were well aware of a number of options for training men. Baillie recorded that Monro's regiment in 1639 had been intended to act as a 'seminarie of sojourns for the training of the countreys'.⁸⁷ He did not elaborate, but it is another example of producing instructors. In 1645 he mentioned sending 'recruits to ly still in the northern garisons, that the old sojourns may come to our army'.⁸⁸ This echoes both Archbishop Laud's description in 1638 of the Berwick and Carlisle garrisons as 'nurseries' and the well-established Spanish practice of using garrisons to train recruits before sending them to their regiments.⁸⁹ Unfortunately there are no surviving records of how effectively Covenanter garrisons functioned as training establishments. The use of drillmasters in burghs or in teams touring the shires reflected common practice. The Covenanters were well aware, therefore, of the training options available to them and tailored them to their needs.

The foundation of the training system was organising the entire fencible population into regiments to enable regular training. Once the policy had been set centrally, such training could only have been organised and run locally, given the scale. The effectiveness of this training was therefore directly related to the skill and enthusiasm of the leadership in the shires, which varied considerably as noted in Chapter 2. Large burghs, such as Edinburgh with 16 companies of fencibles or Glasgow with 8, could have organised their own regimental training, although there is no evidence that they did so. Smaller burghs, however, such as Pittenweem with only 1 small company clearly could not and neither could any regiment which included a contingent from such burghs.⁹⁰ The aim was to generate a well-trained militia

⁸⁴ RPS, 1649/5/347.

⁸⁵ RPS, 1540/12/34.

⁸⁶ CSPS 1595-1597, pp. 172-173.

⁸⁷ Laing, *Baillie*, i, p. 192.

⁸⁸ Laing, *Baillie*, ii, p. 298

⁸⁹ William Prynn, *Hidden Workes of Darkenes Brought to Publicke Light*, (London 1645), p. 172. Roger Williams, *A Briefe discourse of Warre*, (London 1590), p. 11.

⁹⁰ William Skinner, *The Society of Trained Bands Edinburgh*, (Edinburgh 1889), pp. 15-16. Wood, *Burgh of Edinburgh 1626-1641*, p. 220. Marwick, *Burgh of Glasgow i*, pp. 399-401. Cook, *Annals of Pittenweem*, pp. 32-33.

or reserve for local and coastal defence and from which a field army could be levied. As a system this worked after a fashion in both Bishops' Wars, although its output was not tested. There were serious shortcomings in the whole mobilisation system, including training, in 1643/44 but the ASL&C performed as well as its allies and enemies at York, Marston Moor and Newcastle in 1644. Thereafter there was a litany of defeat punctuated by only occasional victory in which indifferent training, of officers as well as men, was a factor.

Local training rhythms developed with regular low level activity: at times there was daily drilling, but at other times it was less frequent. In January 1639 the council in Aberdeen noted that 'the other chief burghs [...] are daily [...] exercising themselves [...] in martial discipline'.⁹¹ In March 1640 General Ruthven, commanding Edinburgh Castle for the king, demanded that the Covenanters stop 'there daylie dreilling within the toune'.⁹² In February 1644, 120 Aberdonians 'drill[ed] daily in the links'.⁹³ In February 1639 Elgin trained 'thrie dayes in the weik', three months later Glasgow opted for weekly drill and in November 1644 the burgh of Kirkcudbright drilled twice a week.⁹⁴ There is no evidence of regimental training. Logically, therefore, men should have been trained at least to use their weapons and to march as a group before joining the army. The last minute selection of men for levies, as described in Chapter 2, meant that both companies and regiments would not have trained together before departing for war. The tardiness of officers in joining their regiments and the shortage of weapons, certainly in early 1644, (see Chapter 2), would have made preparing a regiment for war even more challenging. There were also variables in every shire and burgh in terms of consent, compliance and coercion. Volunteers and men prepared to do their duty would have trained willingly, but pressed men would have been poorly motivated and poorly trained as a result. The most effective training was conducted after regiments had reached the army, which was the case when the army assembled for three weeks at Duns Law in August 1640.⁹⁵ Collective training at regimental level is unlikely to have taken place before the army assembled.

In addition to the challenge posed by weapon shortages, troops equipped with firearms were not necessarily competent in their use. Ammunition was in short supply and expensive meaning that they would have fired their weapons infrequently or possibly not at all in training. The January 1644 Act for Putting the Kingdom in a Posture of Defence included the requirement for the shire committees 'with least expense, [to] exercise their men'. After the weapons themselves, one of the biggest expenses was ammunition for which the same Act set the requirement as 'three pound weight of powder, three pound

⁹¹ Stuart, *Burgh of Aberdeen 1625-1642*, p. 147.

⁹² Spalding, *Memorials of the Troubles*, i, p. 259.

⁹³ Spalding, *Memorials of the Troubles*, ii, p. 152.

⁹⁴ Cramond, *Records of Elgin*, i, p. 263. Marwick, *Burgh of Glasgow*, i, p. 401. Nicholson, *Minute Book*, p. 236.

⁹⁵ Furgol in *Fighting for Identity*, p. 43. Buchanan, Aikman, *Scotland*, iii, p. 557.

weight of ball and six pound weight of match for every musket'.⁹⁶ A musket ball weighed approximately one ounce, meaning that this was enough for 48 shots at most. Given the difficulty which all sides encountered in procuring sufficient powder and lead, this must have been operational ammunition not training ammunition.⁹⁷

Until a certain level of proficiency was achieved, training was conducted without ammunition, progressing in due course to 'some false fires, which is only a little powder in the pan'.⁹⁸ Even if full loads of powder and ball were fired sparingly, this would not prepare the individual for volley firing in the confusion of battle. General Baillie noted in his written defence of his conduct at Kilsyth that he had been unable to get his men to 'spare their shott till the enemy should be at a nearer distance'.⁹⁹ This was not just a Covenanter problem, however. During a Parliamentary assault on Basing House in December 1643, the rear ranks of a regiment fired into their own front ranks owing to a lack of training and experience.¹⁰⁰ At Preston (1648) English Royalists opposed a Parliamentary attack, but 'they shot at the skies' which so encouraged their enemy that 'were willing to venture on any attempt'.¹⁰¹ Lack of live firing training would have reduced men's confidence, increased the number of accidents and affected the performance of troops in battle. Until an army deployed, training could only take place when men assembled for that express purpose, and its effectiveness was determined by its frequency and the willingness of men to participate and as a result standards must have varied considerably.

This presented a particular problem for the remaining fencibles when the fourth and eighth men had departed. Given that large numbers of men deserted because they had had to be coerced into enlisting, it is logical that any consenting or compliant men left behind constituted a minority. Less motivated men would train unenthusiastically assuming they attended the training at all. Sir James Turner's assessment of the Engagers' infantry in 1648 as 'newly levied, raw and undisciplined' does not describe men who had been enthusiastically training in preparation for joining the army.¹⁰² Trying to ensure that men trained explains the policy described above of seeding the shires with veterans whose role included a specific remit to supervise training. Those veterans were too few in number, however, and the outcome was low quality troops who were easily defeated on the battlefield as they were at Kilsyth (1645), Preston (1648) Dunbar (1650) Inverkeithing (1650) and Worcester (1651). The level of ambition - simultaneously to field multiple armies supported by the entire fencible population if necessary - was too high. The

⁹⁶ RPS, 1644/1/11.

⁹⁷ Miller, Allsop and Carr, *The Ballistics of 17th Century Musket Balls*, Journal of Conflict Archaeology, Volume 14, 2019, p. 29.

⁹⁸ Privy Council, *Instructions for Musters and Armes, and the Use thereof*, (London 1623), pp. 8-11.

⁹⁹ Laing, *Baillie*, ii, p. 422.

¹⁰⁰ Elias Archer, *A True Relation of the Marchings of the Red Trained Bands of Westminster*, (London 1643) p. 6.

¹⁰¹ J. Horsfall Turner, *Autobiography of Captain John Hodgson*, (Brighouse 1882), p. 32.

¹⁰² Turner, *Memoirs*, p. 59.

resources and individual commitment required did not exist to be able train the entire fencible population to a high enough standard and to maintain it.

Given the opposition from the shires to levying men for Ireland in 1642, and the decision by the Privy Council to commission men to raise regiments rather than to continue with shire quotas (as described in Chapter 2), then the methodology used to train those regiments must have differed to that of the other armies. In the absence of local training, the two options were to muster and arm the regiments at the port of embarkation as had been done with some of Morton's regiment in 1627 or to muster and arm at the port of disembarkation as had been the case with Mackay's regiment in 1626.¹⁰³ Assembling a regiment for training before embarkation would have been a lengthy process and as had already been seen with the three regiments which were not disbanded in 1641, it resulted in significant problems with desertion.¹⁰⁴ A priority had been set to recruit as many veterans of 1640-41 as possible, which would have reduced the time needed for training if enough were recruited. Eglinton, however, claimed back two dollars levy money for 750 men in 1642 which was the allowance for non-veterans, making it unlikely that the need for training was significantly mitigated, if at all.¹⁰⁵

The regiments were mustered as they arrived in Ireland by Hew Kennedy and thereafter by Thomas Clayton. It is clear from the dates that regiments (with the exception of Argyll's) sent contingents to Ireland as soon as they were mustered, not waiting until a full regiment could be sent. The companies of Leven's foot were mustered between 14 May and 15 July 1642 and Lothian's between 2 July and 3 November, although Argyll's foot mustered as a complete regiment on 1 May.¹⁰⁶ It is likely that some training was done in Scotland and some in Ireland, but clearly the regiments could not train as regiments until they were complete, again making the point that the most effective training was conducted when the regiments and army assembled.

Conclusion

Implemented at the behest of the Tables, the Covenanter training 'system' was firmly based on traditional Scottish methodology with its roots in the wappenschaw and regular training musters: it represented continuity more than change. The parameters were set centrally, but the delivery of training for any given levy was locally controlled until the army mustered. Fundamental to the system was the evolution from the wappenschaw and of the quartering of the kingdom to the organisation of the fencible population into regiments and in the sequential levies of the fourth, eighth and tenth man. The intersection of the old and

¹⁰³ Robert Williams, *The Court and Times of Charles I*, (London 1848), i, pp. 267-268. Monro, *Expedition*, p. 12.

¹⁰⁴ *RPCS 1638-1643*, p. 200, p. 203, p. 206. Spalding, *Memorials of the Troubles*, ii, p. 101.

¹⁰⁵ *RPCS 1638-1643*, pp. 170-171, p. 228, p. 244. Fraser, *Memorials of the Montgomeries*, ii, p. 293.

¹⁰⁶ Stevenson, *Scottish Covenanters and Irish Confederates*, pp. 325-339.

new processes were the divisions of the shires. Within these divisions the total fencible population formed regiments for local and coastal defence and from them a foot regiment and one or more troops of horse could be raised by a levy of the fourth man. The reality of politics and demographics within the divisions would determine how many regiments or troops could be raised and what size they were, but for training purposes it provided a theoretically workable organisation.

The ease with which it was possible to train routinely as companies, troops or regiments would have been partly determined by population density. Its effectiveness would have been determined by the frequency of the training and the willingness of the men to train. Training was delivered locally by drillmasters or appointed officers using up to date drill manuals, at least three of which were written by Scots and published in Scotland. Routine training followed a simple progression from men learning how to use their weapons first as individuals and then as part of a group. They then learned how to conduct simple manoeuvres as a company or troop and then as regiments. The exception to this was the artillery, the core of which consisted of men who were employed as gunners in peace as well as in war. Additional men would have had to have been trained to use the smaller regimental guns but given the simplicity of the guns and the small numbers involved this would not have been a significant challenge. Once regiments had mustered as part of a field army, they would have been able to train more effectively and would have gained in experience daily. The cycle described above was repeated, when necessary, for the eighth man and for the tenth man. Whatever imperfections existed in the Covenanter machine, this basic progression was successfully achieved for every army fielded. This must be caveated by the fact that neither the regiments nor the armies were battleworthy on arrival at the army rendezvous, but this was also the case for their enemies until 1644.

The transition from training geographically based companies and regiments to training a levy regiment for the field army was not well managed, if it was managed at all. Ideally men would have been selected early enough to disengage from their local company and assemble for training as the company that was going to deploy. Had there been sufficient time before departing for the army rendezvous each regiment would also have benefitted from mustering and training together before marching out. Late selection of men or very short timescales precluded this, however, as did the burghs being effectively exempted from regimental training. The period when the army assembled was therefore important for training at regimental level and above and for imposing discipline, but even then there were challenges to manage. In 1640 the army advanced into England early for fear that it would otherwise disintegrate and in 1644 there was a shortage of officers, men and weapons when the ASL&C crossed the border, neither situation being conducive to effective training. Yet both of these armies, and indeed all Covenanter armies, were able to function in the field even if their battle readiness differed significantly.

The deployment of the levied army also had implications for the training of the geographically based regiments. Training continued to prepare for subsequent levies of the eighth and tenth man and for local and coastal defence, but the willingness of the men to train was lessened because the consenting and compliant were in a minority amongst those who had not deployed. The more unwilling the men, the less effective the training: a man who did not turn up when the levy mustered or who deserted at the first opportunity is unlikely to have trained enthusiastically. The Covenanter training system was good enough to provide men with a basic level of individual competence, but the training carried out in the regiments was of vital importance. The fencibles may have been organised as regiments, but the training system based on them did not train functioning regiments for the field army: it effectively trained individuals, who had then to be organised into and trained as soldiers in companies, troops and regiments.

The Covenanter training system was typical of the period in that it was impermanent and implemented only in times of crisis, the exceptions being the Spanish system and (in theory) the English militia system. A common feature was that most, if not all, training conducted before a regiment mustered focussed on individuals and small groups, making the training in regiments after the muster essential to create a battleworthy force. This, given the many issues which arose, the Covenanters managed at least as well as their allies and enemies. The importance of this level of training was clearly seen in the mismatches of newly levied regiments facing Monroe's and MacColla's veterans and the initial struggles of the ASL&C against experienced Royalist troops in 1644. Another common feature was the disparity between what was intended and what was achieved, as with the examples cited above of the length of time the levies had in theory spent in training compared to the low standard of their performance at Alford and Kilsyth.

While there was instruction for officers on the management of training there appears to have been nothing done to establish an officer ethos of the sort described in Monroe's and Turner's works. This was most clearly seen in officers absenting themselves from their duty to the detriment of their men, but as indicated, this was typical of the period and not exclusively a Covenanter problem. Modernising the old Common Army concept, the key feature of the Covenanters' system was the intent to organise and train the entire fencible population as a force which could be called out in an emergency, a level of ambition not matched elsewhere. While it enjoyed some success with coastal defence during the Bishops' Wars, by 1650 calling out such unwieldy and poorly trained masses was deemed unrealistic. The Covenanter system was typical of its time delivering adequately trained men to the regiments and the army where they then received much needed further training. The level of ambition was not matched by the outcomes, however, not least because once the majority of the consenting and compliant men had deployed, enthusiasm for training waned. Covenanter soldiers were not trained as well as they might have been, but given the constraints, they were trained as well as they could have been.

Chapter 4 - Infantry

Introduction

Covenanter infantry was, in general, structured according to the contemporary European model, which consisted of regiments made up of a variable number of companies.¹ There were two basic types of Covenanter infantry regiment. Although the terms are anachronistic, the first were the 'active-duty' regiments serving in field armies or garrisons and the second were the 'reserve' regiments into which the entire fencible population was divided as described in Chapters 2 and 3. Both consisted of pikemen and musketeers, but they were trained and equipped to different levels. There were fewer opportunities to train the reserve regiments and too few weapons to fully equip the entire fencible population, most notably a shortfall in 3-pounder regimental guns.² The primary roles of the active duty regiments were to fight battles alongside the cavalry and artillery and to defend key locations such as towns, ports or castles. The roles of the reserve regiments were to turn out in emergencies to defend their own and neighbouring shires, as well as to act as administrative units enabling training and levying as directed by the shire committees of war.³ This chapter will consider the leadership, organisation and equipment of the Covenanter's infantry arm to determine its effectiveness, including any differences between the types of regiment.

The scholarship concerning Covenanter infantry is limited in a number of ways. Although the adoption of regimental structures consisting of companies of musketeers and pikemen is made clear, subsequent analysis is more confused. The variation in numbers of companies is noted, but there is a gap in that the significant differences in regimental organisations are not considered at all.⁴ Similarly, there is little consideration of why the ratio of muskets to pikes was usually 2:1 and the arguments that over time both the proportion of muskets and of pikes increased, is clearly contradictory.⁵ Other infantry equipment is hardly considered, particularly the use of regimental guns, Swedish Feathers and pikemen's armour. Further analysis of such gaps highlights the degree to which local solutions predominated rather than an adherence to centrally directed templates. It also provides new evidence for the vectors which carried military knowledge from Europe to Scotland. This thesis addresses these gaps, inconsistencies and inaccuracies and brings clarity and new scholarship to the historiography.

¹ NRS, *GD16/52/19*. Turner, *Pallas Armata*, p. 222.

² Knowler, *Strafforde's Letters*, ii, p. 271. CSPD 1640, p. 616. Laing, *Baillie*, ii, p. 441. Laggan, *Wariston 1639*, p. 50.

³ Inter alia. Gordon, *Scots Affairs*, ii, pp. 252-253. NRS, *GD16/52/19*. CSPD 1639, p. 251. RPS, 1644/6/234, A1650/5/116.

⁴ Furgol in *National Covenant*, pp. 143-144. Young, Holmes, *English Civil War*, p. 46. Reid, *Crown, Covenant and Cromwell*, p. 28. Singleton, *Famous by My Sword*, p. 9.

⁵ Inter alia. Firth, *Cromwell's Army* p. 72. Holmes, *Preston 1648*, p. 12. Gentles, *New Model Army*, p. 27. Young, Holmes, *English Civil War*, p. 46. Carpenter, *Military Leadership*, p. 47. Furgol in *National Covenant*, pp. 142-143

Sources And Methodology

There are far more sources available concerning the infantry than there are relating to the artillery and cavalry. These encompass the full spectrum from Scottish and English parliamentary records to shire, presbytery, burgh and parish records, to drill books, individuals' diaries and letters. In geographical terms the coverage is excellent for lowland Scotland, although far more limited for the highlands. A frustrating gap is the paucity of surviving records of the shire and presbytery Committees of War. Important contextual understanding in terms of routine activity is particularly provided by the accounts of the ASL&C (1644-1646), those of the armoury in Leith (1643-1648), the contracts for the supply of the English NMA (1645) and the Royalist ordnance records (1642-1646).⁶ This is enough to identify the theory underpinning tactics and organisation (drill books), the planning and intentions of the leadership to put those into practice (Levy Acts, official and private letters) and to determine how successfully these were applied (burgh records, financial accounts, diaries, letters, battle reports).

These sources allow a variety of timelines to be constructed and compared. When the issue of muskets and pikes to regiments can be compared to muster strengths (unfortunately few and fragmentary – see Table 4.6) an indication of basic combat readiness can be determined. This can also be compared to the mobilisation and training timelines considered in Chapters 2 and 3 to add to that understanding of readiness. It is also possible to track the use of Swedish Feathers by infantry regiments and to assess their utility (Table 4.8). Changes to regimental structures over time indicates the influence of commanders and changes in tactics brought about by experience or resource constraints. The overall assessment of infantry effectiveness will also draw on its contribution to the outcomes of battles, which is where judgement is most unforgiving.

Structures

The French adopted regimental structures as early as 1560, with four units placed 'on a permanent footing with a theoretical complement of twelve companies' in 1574. From then on, structures and strengths varied considerably but the regiment itself was an enduring unit of the army.⁷ In Sweden infantry regiments were developed over some decades, but by the 1630s they consisted of eight companies totalling some 1200 men.⁸ James Turner, the prominent Covenanter officer, wrote in 1683 that throughout Europe 'there is not a definite number of Companies ordain'd for each Regiment, some consisting of six, some eight, some twelve, and some of twenty, but ten is now most ordinary'.⁹ His assessment accurately

⁶ Terry, *Papers Relating to the ASL&C*. NRS, PA 15/3. London Museum, 46.78/709, *Contracts for the supply of equipment to the New Model Army*, 1645. Roy, *Royalist Ordnance Papers*.

⁷ Lynn, *The French Army*, p. 468-469.

⁸ Roberts, *Gustavus Adolphus*, pp. 220-221.

⁹ Turner, *Pallas Armata*, p. 222.

describes the direction in the Covenanter mobilisation instructions written in 1638, in which the Tables directed that ‘thair must be eight companies in ane Regiment not barring seven or nyne’ if the distribution of the fencible population warranted it.¹⁰ Table 4.1 shows Covenanter regimental structures across the period, which also makes it clear that there was no fixed number of companies.

Examples of Regimental Structures		
Date	Document	Structure
1627 ¹¹	Morton’s commission	2000 men in 22 companies each of 10 officers and 80 men.
1632 ¹²	Swedish Discipline	Swedish: 33 officers, 1008 men in 08 companies of 126 men.
1639 ¹³	Royalist Pay Scales	Royalist: 130 officers 1378 men in 01 company of 200, 01 of 150 and 10 of 115 men.
1638/39 ¹⁴	Initial mobilisation orders	Covenanter: Regiments of 07, 08 or 09 companies, each of 200 or 150 men.
1640 ¹⁵	Great Account	Included 02 regiments each of 600 men.
1642 ¹⁶	Ulster muster rolls	Covenanter: 01 regiments of 14 companies, 07 of 10 companies, 02 of 09 companies.
1644 ¹⁷	Broadsheet: Regiments at Newcastle	Covenanter: 19 regiments of 10 companies, 01 of 05 companies.
1645 ¹⁸	English NMA Act	1200 all ranks in 01 company of 200, 01 of 160, 01 of 140 and 07 of 100 men.
1645 ¹⁹	Act setting pay scales	Covenanter: 118 officers, 1000 soldiers in 10 companies.
1646 ²⁰	Newark muster	Covenanter: Included regiments of 09, 08, 06 and 05 companies.
1647 ²¹	Covenanter NMA Act	02 regiments of 1000 in 08 companies, 05 of 800 in 06 companies.
1647 ²²	English Parliament Pay Act	61 officers, 1200 men in 01 company of 200, 01 of 160, 01 of 140 and 07 of 100 men.
1648 ²³	Engager Levy Act	Regiments of 1500, 1200, 1000, 900, 800, 750, 666 or 600. (Estimated from number to be levied and foot colonels appointed.)
1650 ²⁴	Covenanter Levy Act June	Regiments of 08 companies each of 126 men.
1650 ²⁵	Covenanter Levy Act July	Regiments of 750, 800, 870, 900, 920, 1124 and 1200 men.
Table 4.1		

The earl of Morton’s regiment (raised in Scotland for the 1627 La Rochelle expedition), Swedish, Royalist and Parliamentary examples are included for comparison. A generic foot regiment of the period had a regimental element and 10 companies. The regimental element consisted of key officers such as the colonel, lieutenant colonel, the major (sometimes still called the sergeant-major), the surgeon, the quartermaster and administrative staff such as secretaries. A typical company consisted of the captain, lieutenant, ensign, two sergeants and three corporals for a total of approximately 100 officers and men. This was clearly the intended structure for the majority of the regiments despatched to Ulster in 1642 and

¹⁰ NRS, *GD16/52/19*.

¹¹ *RPCS 1627-1628*, pp. 50-51.

¹² *Swedish Discipline*, pp. 76-77.

¹³ Rushworth, *Historical Collections 1639-1640*, pp. 1046-1048.

¹⁴ NRS, *GD16/52/19*, PA7/2.

¹⁵ *Great Account, 1641*, p. A3.

¹⁶ Stevenson, *Scottish Covenanters and Irish Confederates*, pp. 325-339.

¹⁷ *A List of the Severall Regiments [...] Quartered Near Newcastle*, 1644.

¹⁸ Firth, *Cromwell’s Army*, p. 43.

¹⁹ RPS, *1645/1/132*.

²⁰ Terry, *Papers Relating to the ASL&C*, pp. xl – xliii. *JHL* viii, p.186.

²¹ RPS, *1646/11/182*.

²² *JHL*, x, pp. 68-69.

²³ RPS, *1648/3/104*.

²⁴ *Act for a Leavie of Horse and Foot*, 25 June 1650.

²⁵ RPS, *A1650/5/116*.

in the ASL&C in 1644, as shown in Table 4.1, but the reality is that numbers and structures varied significantly.

Covenanter infantry regiments were not organised according to a single centrally imposed template with a fixed number of companies. There are a number of reasons why numbers varied. Morton's commission from the king authorised him to organise his regiment with 'fewer companeis and under the command of fewer captans and officers' if he thought that would be 'more fitting for [the king's] service', meaning that personal preference was a factor.²⁶ The ASL&C provided garrisons simultaneously in Berwick, Carlisle, Warkworth Castle, Tynemouth Castle, Newcastle-upon-Tyne, Hartlepool, Stockton Castle, and Thirlwall Castle, which resulted in variation in the strength of those regiments which provided the manpower.²⁷ Callendar's Foot, for example, provided between 336 and 501 men for the garrison of Hartlepool between May 1645 to January 1647 and between 40 and 168 men to garrison Stockton from June 1646 to January 1647.²⁸ At Newcastle in 1644, the Ministers' Regiment only had five companies because the presbyteries failed to raise a full regiment, as described in Chapter 2. The varied numbers in the July 1650 levy Act were derived from demographic data within defined geographical areas as these regiments were the last reserve, replacing the call out of every single fencible.²⁹ Colonels also had considerable leeway to adopt structures they preferred as had been the case with Morton in 1627. At least three ASL&C infantry regiments, those of Ludovick Leslie, Lumsden and Stewart, included a troop of cavalry, for example. This would have been tactically sound when on detached duty such as when Leslie was governor of Tynemouth castle (1644-1647), although in a battle such troops must have reverted to the control of the general of horse.³⁰ Through circumstance and local decision making Covenanter infantry regiments varied considerably, particularly those of Montgomery in the Bishops' Wars and Monro's from 1640-1646, which will be examined below.

Viscount Hugh Montgomery's regiment was a unique unit in both Bishops' Wars, and deliberately so, presumably influenced by his European experience which is described below. The evidence is plentiful for 1640/41, but only sufficient to confirm the regiment's existence in 1639. The accounts of his father (6th earl of Eglinton) for 1639 refer to 'my sones brigaid' and to '400 men for my Lord's squader', or squadron, which consisted of three companies.³¹ The records for 1640/41 provide much greater detail of a unit which was described both as a regiment and as a brigade, although more often the latter. The brigade had two lieutenant colonels, two quartermasters, two furriers (assistant quartermasters), two o

²⁶ *RPCS 1627-1628*, p. 51.

²⁷ *CSPD 1645-1647*, pp. 114-115.

²⁸ Furgol, *Regimental History*, p. 121.

²⁹ *RPS, A1650/5/116*.

³⁰ Terry, *Papers Relating to the ASL&C*, i, p. 65, p. 78, ii, p. 379. Furgol, *Regimental History*, p. 158, p. 178.

³¹ Fraser, *Memorials of the Montgomeries*, ii, pp. 291-292.

surgeons and two ministers which means that it could have deployed for extended periods as two separate units on separate tasks. It had twelve companies, three of which formed a squadron commanded by the second lieutenant colonel. Table 4.2 shows the muster strengths of the companies in the brigade during the Second Bishops' War. In most of the surviving muster and pay records the three companies of the squadron are administered as a single unit. Grouping a number of companies together for a specific task was common Spanish and Dutch practice. Monro described a group of four companies as a squadron which was also the name given to a temporary command for a lieutenant colonel.³² It is impossible to determine what motivation lay behind the decision to create Montgomery's brigade, but the squadron certainly suggests European influences at play which may also be detected elsewhere.

Muster Strengths for Montgomery's Brigade														
	1640						1641							
Company	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Porterfield	199	199	192	190	189	189	189	189	187	187	187	187	187	187
Wray	144	135	135	135	136	134	134	134	134	138	139	139	139	139
Montgomery	104	120	120	120	120	107	105	103	103	103	103	103	103	103
Mure	218	215	215	215	215	215	180	180	183	183	183	183	181	181
Crawford	115	115	115	115	116	116	116	116	115	116	116	116	116	116
Stewart	122	114	114	112	112	112	112	112	112	112	112	112	116	116
Hamilton	139	135	135	135	135	135	135	135	135	138	138	135	139	138
Knox	108	103	101	101	101	102	102	104	103	106	106	109	109	109
Logan	81	79	79	79	79	76	76	76	76	79	80	80	80	80
Squader	416	385	389	389	377	362	344	350	343	365	365	365	365	365
Baggage	053	053	053	030	015	010	010	010						
Summa	1709	1643	1638	1611	1585	1558	1503	1509	1509	1541	1541	1541	1535	1535
[Corrections]	[1699]	[1653]	[1648]	[1621]	[1595]									

Table 4.2³³

A more detailed breakdown of the rank structure reveals three corporals per company, although the total number of corporals shows that Porterfield and Mure, who had double sized companies, also had double the number of corporals. This reflects Dutch practice of three per company rather than the Swedish six per company.³⁴ The unit had an adjutant whose pay was that of a lieutenant and which Turner noted was an appointment in some French infantry regiments, his function being to assist in the passage of orders.³⁵ As noted in Chapter 1, two of Eglinton's sons, Hugh and Alexander, had seen some service in France and the former was at the Siege of La Mott in northeastern France in 1634, a siege which lasted 141 days. During the siege he spent at least some of his time with Hepburn's regiment which was raised in Scotland and served with the French army. Hepburn had previously served with Monro in Swedish

³² Parker, *Military Revolution*, p. 199. Monro, *Expedition*, p. 127, p. 202, p. 288.

³³ NRS, GD3/9/5/1/2, GD3/9/5/1/9, GD3/9/5/3/3, GD3/9/5/3/15, GD3/9/5/3/21, GD3/9/5/3/23, GD3/9/5/3/35, GD3/9/5/3/36, GD3/9/5/3/39.

³⁴ Nimwegen, *Dutch Army*, p. 22. *Swedish Discipline*, pp. 76-77.

³⁵ NRS, GD3/9/5/1/2. Turner, *Pallas Armata*, pp. 249-250.

service. The Seton family, (Eglinton's original surname), had a history of service in the French army and a Dutch lieutenant served in Hugh Montgomery's brigade in 1639, suggesting ongoing European links.³⁶ Whatever the actual influences were, there is no suggestion here of ignorance of military affairs. These brigades did not conform to the direction given by the Tables or the Estates, again demonstrating the importance of local decision making in generating Covenanter military capability.

Monro's regiments in the Bishops' Wars were also unique units in the Covenanter order of battle. As described in Chapter 2, Monro's regiments were raised from across the shires south of the Tay and the numbers were in addition to the shire's subsequent levy quotas. Again there is sufficient evidence of the 1639 regiment to confirm its existence but little else. It was intended to be 2000 men, all ranks, and included at least one double company.³⁷ The manpower totals from the surviving muster records for May to August 1640 are shown in Table 4.3. Monro had troops under command from early March 1640 and he continued to raise troops or have levies sent to him, until at least early August.³⁸ A regiment of over 1400 men was large, but not excessively so: the earl of Lothian's regiment numbered 1300, all ranks, from October to December 1640 for example.³⁹ The number of sergeants and corporals is higher than normal.

Muster Strengths for Monro's Regiment May – August 1640									
Date	Capts	Lts	Ensigns	Sgts	Cpls	Underofficers	Drummers	Solders	Total
8 May	09	10	03	22	35	44	22	820	965
7 June	11	12	04	26	41	52	26	970	1142
6 July	12	13	07	26	41	52	26	970	1147
6 August	12	13	10	28	61	56	28	1238	1446
Table 4.3 ⁴⁰									

For most of the period the norm was 20 sergeants and 30 corporals in a regiment of 10 companies.⁴¹ The number of sergeants is easily explained by the assumption that there was a double company as was the case in Monro's 1639 regiment. The number of corporals is similarly explained, albeit with a surplus of two in May and June and a deficit of one in July, but August shows a surplus of 19. The purpose of these additional corporals could only have been to increase control within the regiment whether that was to combat desertion, or to enable training or the adoption of more complex tactical manoeuvres. A higher proportion of corporals to soldiers also reflected Monro's personal experience in Swedish service.⁴² Yet this was not a Swedish regiment in terms of the overall structure and numbers. Rather, it was a bespoke organisation implemented by Monro and one that he persisted with in Ulster, retaining the 14 companies,

³⁶ Fraser, *Memorials Eglinton*, i p. 77, p. 84, ii, p. 292.

³⁷ NRS, GD26/7/158. Laing, *Baillie*, i, pp. 191-192. Stevenson, *History of the Church and State*, p. 360.

³⁸ *Great Account*, p. A2.

³⁹ NRS, GD3/9/5/18.

⁴⁰ NRS, PA16/1.

⁴¹ Inter alia. NRS, GD3/9/5/36. RPS, 1643/6/85, 1645/1/132, 1646/11/29.

⁴² Monro, *Expedition*, p. 288.

although reducing the number of sergeants and corporals to normal levels.⁴³ As with Montgomery's Brigade, Monro's regiments did not conform to the central direction given from Edinburgh, demonstrating that commanders had considerable latitude in organising their units.

Covenanter infantry could also be organised as 'commanded men'. These were units created, usually temporarily, for specific tasks by drawing on the manpower of existing regiments. Using commanded men was a common practice across Europe. Monro described the use of such troops in Europe in 1628/29 and Turner in Ulster in 1642 and at Preston in 1648.⁴⁴ The tasks assigned to commanded men ranged from the provision of musketeers to support cavalry (more common before the advent of dragoons), to the provision of a garrison. Less commonly they could form a complete composite regiment as was the case when the Scottish Parliament sent Sir William Cochrane to Ulster in 1645 to seek additional men to oppose Montrose. His instructions were to seek 1400 men either in 'entire companies' or as 'commanded men'.⁴⁵ Colonel Beecher wrote to William Roe, Secretary to the English Parliamentary Commissioners, in June 1645, concerning Thomas Maclellan, 2nd Lord Kirkcudbright's '300 commanded men'.⁴⁶ The term was so much a part of everyday speech that it was used without explanation.⁴⁷ Other examples of commanded men were the first men to attack the breaches when Newcastle was captured in October 1644, Haldane's men who precipitated the uncoordinated attack at Kilsyth in August 1645 and the 705 men from William, 3rd Lord Cranston's, Dunfermline's, John Hay, Lord Yester's and James Rae's regiments of the ASL&C who returned to Scotland in response to the defeat at Kilsyth.⁴⁸ Although they were ad hoc units, commanded men added further variety to Covenanter infantry structures.

Equipment

The direction given in drill books and by the Privy Council, Scottish Parliament and the Committee of Estates concerning the infantry's arms and equipment is summarised in Table 4.4. The Table shows that the primary infantry weapons were the musket and pike usually backed up by a sword and initially at least, that the intent was for pikemen to have body armour and helmets. To this must be added the 3-pounder regimental guns (see Chapter 6), of which there were usually two per regiment in the field armies. Throughout the seventeenth century there was a Europe-wide debate about what proportions of the infantry should be equipped with firearms and pikes. Textbooks had variously advocated 1:1, 2:1, and

⁴³ Stevenson, *Scottish Covenanters and Irish Confederates*, p. 330.

⁴⁴ Monro, *Expedition*, i p. 55, p. 79, ii p. 4. Turner, *Memoirs*, p. 22, p. 63.

⁴⁵ RPS, 1645/7/24/35.

⁴⁶ CSPD 1644-1645, p. 558.

⁴⁷ JHC, v, p. 172. JHL, viii, p. 186. CSPD 1644, p. 168. *The True relation of the late & happie victorie at Kilsyth [...]*, (Aberdeen 1645), p. 7.

⁴⁸ William Lithgow, *Siege of Newcastle*, (Edinburgh 1645), p. 18. Laing, *Baillie*, ii, p. 421. Terry, *Papers Relating to the ASL&C*, i, p. 191, p. 199, p. 202, p. 206.

4:3;⁴⁹ Dutch regiments had been structured as 1:1, 2:1 and 3:2; French regiments as 3:2 and 2:1; Russian regiments as 2:1; Spanish regiments as 1:1 and 3:1; and Swedish regiments as 1:1, 3:2 and 4:3.⁵⁰ In the British Isles 1:1 had been common in the early decades of the century but from 1639 the most common, deliberately adopted, proportion was 2:1.⁵¹ Although the Covenanters' initial direction in 1639 was for the infantry to consist of either two thirds musketeers or two thirds pikemen, a ratio of two muskets for every pike quickly became the norm as Table 4.4 makes clear.

Infantry Equipment in Theory			
Date	Musketeer	Pikeman	If no Musket/Pike
Jan 1639 ⁵²	Pike, musket, sword, corslet, headpiece. Two thirds muskets or two thirds pikes.		
1642 ⁵³	‘Frame their companies two parts Musketeers and the third part Pikes.’		
Aug 1643 ⁵⁴	Musket and sword.	Pike and sword.	Halberd, Lochaber axes or Jedburgh staffs and swords.
Oct 1643 ⁵⁵	Two part Muskets, and third part Pikes.		
Feb 1644 ⁵⁶	Muskets, Picks, Swords.		
Mar 1645 ⁵⁷	Two part Musket, and third part Pick.		
Apr 1648 ⁵⁸	Sufficiently provided with arms.		
May 1648 ⁵⁹	Two part with muskets and third part pikes, and all with swords.		
Sep 1648 ⁶⁰	Good swords, and two parts muskets, and third part pikes.		
Oct 1648 ⁶¹	Two part with muskets and third part pikes, and all with swords.		
July 1650 ⁶²	Muskets, Pikes, and Swords.		Their best arms.
Dec 1650 ⁶³	Two part muskets and third part picks and all with swords.		
Table 4.4.			

Table 4.5 shows examples of ratios of muskets to pikes in practice, in planning, on mobilisation and on campaign which shows that an exact 2:1 ratio was not always achieved. In the Pittenweem and Dumbarton examples, the levy quotas were simply not divisible by three and the quoted company muster rolls reflect the effects of attrition on men and equipment. Mure's company is an anomaly, however. Except for the muster document referenced in the table, his company muster strengths between August

⁴⁹ Robert Barret, *The Theorike and Practike of Moderne Warres*, (London 1598), p. 69. Kellie, *Pallas Armata*, p. 14. Achesone, *Military Garden*, p. 4. Monro, *Expedition*, Part 2, p. 183. Hexham, *Second Part [...] of the Art Militarie*, p. 18. Gervase Markham, *The Souldiers Accidence*, (London 1625), p. 33. Ward, *Animadversions*, p. 213. Barrieffe, *Military Discipline*, p. 307. Richard Elton, *The Complete Body of the Art Military*, (London 1650), p. 2. Orrery, *Art of War*, p. 24, p. 41.

⁵⁰ Edouard Duparcq, *Histoire Sommaire de l'Infanterie*, (Paris 1853), i, p. 32, p. 34. Geoffrey Parker, *The Army of Flanders*, (Cambridge 1972), pp. 274-275. Parker, *Military Revolution*, p. 18. William Guthrie, *The Later Thirty Years War*, (Westport 2003), p. 16, pp. 32-33. Roberts, *Gustavus Adolphus*, ii, p. 219. Lynn, *The French Army*, p. 181, pp. 469-470. Kotilaine, and Poe, *Modernizing Muscovy*, (London, New York 2004), p. 229. Nimwegen, *Dutch Army*, p. 91, p. 397. *Swedish Discipline*, p. 79, p. 85.

⁵¹ John Nichols, *The Progresses and Public Processions of Queen Elizabeth*, (London 1823), iii, p. 520. CSPD 1627-28, p. 488. CSPD 1637-1638, p. 94. CSPD 1638-1639, p. 344, p. 574, p. 582. CSPD 1639-1640, p. 492. *Directions for Musters*, (Cambridge 1638), p. 6. BW Quintrell, *The Maynard Lieutenancy Book, 1608-1639*, (Chelmsford 1993), p. 329.

⁵² NRS, PA7/2, GD16/52/19, GD16/52/19.

⁵³ *Lessley's Direction and Order for the Exercising of Horse and Foot*, p. A2.

⁵⁴ RPS, 1643/6/77.

⁵⁵ *Instructions sent be the Committee of the Estates [...] October 20, 1643*, p. 3.

⁵⁶ RPS, 1644/1/67.

⁵⁷ At Edinburgh the 28 day of March 1645.

⁵⁸ RPS, 1648/3/79, 1648/3/104.

⁵⁹ *Act Anent the Leavies of Horse and Foot [etc]*, 4 May 1648, p4.

⁶⁰ NRS, GD220/3/189.

⁶¹ *Act for Leavying of some Forces [etc]*, 14 October 1648, p. 15.

⁶² RPS, A1650/5/116.

⁶³ RPS, A1650/11/16.

1640 and September 1641 varied between 180 and 215 men.⁶⁴ This suggests that in this case the precise 2:1 ratio reflects a muster for a specific event, not a routine monthly total, but it is, nevertheless, a practical demonstration of the importance of that ratio and that it could be achieved.

Infantry Equipment in Practice	
April 1639 ⁶⁵	'Covenanters have two thirds of their infantry musketeers, and the other third part pikes.'
April 1639 ⁶⁶	Pittenweem: '14 Musketeers, 8 Pike men [...] under the command of captain Lentrone.'
May 1639 ⁶⁷	Dumbarton: 'Twentie-thrie men, armit as said is, viz, fourteen musketeers and nyne pikmen, and all having swords.'
1640 ⁶⁸	'List of Men Who Received Their Pay': 69 musketeers, 57 pikemen.
November 1640 ⁶⁹	'Roll of Captain Robert Hamilton's Company': 84 musketeers, 48 pikemen.
Undated 1640/41 ⁷⁰	'Roll of Sir William Mure's Company': 96 musketeers, 48 pikemen.
November 1641 ⁷¹	For Ireland: 'armes [...] for 3000 men, 2 pairt musketts, and 3d pairt pickes'.
July 1642 ⁷²	Treaty for Army to Ireland: 'to send over with their army the number of 6,000 muskets and 4,000 picks [...] and 10,000 swords'.
January 1644 ⁷³	'A List of Wedderburn's Company, 1644': 42 musketeers and 21 pikemen.
February 1644 ⁷⁴	'The soldiouris of both Abirdenis had tuo pairt mvscatis, and thrid pairt pikis.'
April 1644 ⁷⁵	'To the earl of Lanark [...] 1,000 muskets [...] 500 picks and 200 swords'.
	'To Lord Sinclair [...] 200 muskets [...] 100 picks, 30 swords.'
	'To Robert, viscount of Kenmure [...] 600 muskets and bandoliers and 300 picks.'
Table 4.5.	

The key conclusion to draw from this is that the importance of the ratio can be overestimated. The reality was simply that the majority of the men were, if possible, armed with muskets, reflecting the tactical importance of firepower.

One significant example of local decision making in equipping the infantry is the highland shires fielding contingents of archers throughout this period. This was not a stop-gap measure to deal with equipment shortages but a choice to use weapons with which many men were familiar from hunting.⁷⁶ Numbers of archers were limited and they did not feature in lowland regiments. There are no definitive numbers, but the absence of entries concerning either bows or arrows in the accounts of the ASL&C and the armoury in Leith indicates that they were low. Bows and arrows were used by other armies in the wars but in exceptions to normal practice. During the Siege of Gloucester on 3 September 1643, 'a paper was shot upon an arrow into the Towne [...] To which presently upon another arrow was returned [an]

⁶⁴ NRS, GD3/9/5/3/15, GD3/9/5/1/9.

⁶⁵ CSPD 1639, p. 98.

⁶⁶ Cook, *Annals of Pittenweem*, p. 33.

⁶⁷ *Dumbarton Burgh Records*, p. 58.

⁶⁸ NRS, GD3/9/5/1/4.

⁶⁹ NRS, GD3/9/5/3/32.

⁷⁰ NRS, GD3/9/5/3/31.

⁷¹ Balfour, *Historical Works*, iii, p. 134.

⁷² RPS, 1644/6/201.

⁷³ HMC, *Report on the Manuscripts of Colonel David Home*, (London 1902), p. 95.

⁷⁴ Spalding, *Memorials of the Troubles*, ii, p. 321.

⁷⁵ RPS, 1644/1/100, 1644/1/101, 1644/1/115.

⁷⁶ *His Maiesties passing through the Scots Armie*, p. 4.

answer'.⁷⁷ The most significant example was when the earl of Essex ordered 'the Raising [of] a Company of Archers' in London in November 1643, although no record of them survives thereafter.⁷⁸ There are other examples, but none to compare with their use by the highlanders, and none after the early 1640s.

In January 1638 the marquis of Huntly wrote to the marquis of Hamilton requesting support which included 1000 bows.⁷⁹ Argyll, then Lord Lorne, wrote to Glenorchy in June 1638 asking for timber to be sent to Inveraray, explaining that 'the tymber i desyre is shaftis for makeing of arrows'.⁸⁰ It is unsurprising, therefore that archers, bows and arrows featured in the mobilisation of 1639. In June 1639 Sir John Borough, the English Garter King-at-arms, wrote to Windebank, one of the king's Secretaries of State, informing him that the Covenanters' forces included 'many Highlanders armed with bows and arrows to gall our horse'.⁸¹ Bows had a higher rate of fire than muskets, but less penetrating power and would therefore have been particularly effective against unprotected horses. An additional advantage was that as bows were in common use in parts of the highlands, the training requirement was minimal. There were pragmatic reasons for fielding archers, but they gave little or no battlefield advantage: the future of infantry firepower lay in muskets.

John Aston wrote of the highlanders at Duns Law in June 1639 that 'the greater part [had] bow and arrows', although Baillie noted that they were few in number with 'some companies of them under Captaine Buchanan, and others in Areskine's regiment'.⁸² Similarly unspecified, but small numbers of archers featured in the Second Bishops' War. Conway received a report concerning highland archers when the Covenanters' army crossed the border in August 1640 and they appeared in the account of the king's inspection of the Covenanter Army in August 1641.⁸³ Archers also featured in the Ulster army and on both sides during Montrose's and MacColla's campaign of 1644/45. Again numbers are uncertain but low compared to other infantry types.⁸⁴ In 1648 John Gordon, 13th earl of Sutherland raised forces which prevented the northern clans sending troops to the Engager army, which may explain the lack of records concerning archers during the Engagement.⁸⁵ More highland regiments served in the campaigns of 1650 and 1651 which makes the deployment of archers likely, but evidence of this has yet to be found.⁸⁶

⁷⁷ John Dorney, *A Briefe and exact relation of the [...] seige laid before the city of Gloucester*, (London 1643), p. 11.

⁷⁸ Rushworth, *Historical Collections*, v, pp. 370-371.

⁷⁹ NRS, GD406/1/412.

⁸⁰ NRS, GD112/39/66/24.

⁸¹ CSPD 1639, p. 268.

⁸² Hodgson, *Journal of John Aston*, p. 28. Laing, *Baillie*, i, p. 212.

⁸³ CSPD 1640, p. 617. *His Maiesties passing through the Scots Armie*, p. 4.

⁸⁴ Hewison, *Covenanters*, i, p. 410. Stevenson, *Scottish Covenanters and Irish Confederates*, p. 65. Stevenson, *MacColla and the Highland Problem*, p. 127, p. 156, p. 262. Buchan, *Montrose*, p. 189, p. 214.

⁸⁵ Furgol Edward, *The Northern Highland Covenanter Clans 1639-1651*, Northern Scotland, January 1986, p. 124.

⁸⁶ Furgol, *Regimental History*, inter alia p. 298, pp. 383-388. Furgol, *Highland Covenanter Clans*.

Notably, the evidence relating to the Covenanters' later battles makes no mention of archers, making it certain that they had no effect on the battles' outcomes.

Despite importing and capturing thousands of weapons during the Bishops' Wars and when mobilising troops for Ireland, there was (as will be shown below) a shortage of infantry weapons when the ASL&C was mobilised and this must be explained. When Leslie left Swedish service in 1638 he was promised 2000 muskets in recognition of his faithful service.⁸⁷ On unspecified dates between 1638/39 and 1641 the Dutch born Scottish merchant Thomas Cuninghame arranged for the shipment to Scotland of 15,673 muskets, 52 pairs of pistols and 6,965 swords in addition other arms and ammunition.⁸⁸ What proportion of those numbers was in Covenanter hands by August 1640 is unknown, but the capture of Newcastle in that month added 'five thousand armes, muskets, and pikes' to the available total. Other arms shipments (which may or may not have been Cuninghame's) were landed in Scotland. Lord Ruthven of Ettrick (the ennobled General Patrick Ruthven) reported in March 1640 that 'had two shippes very lately arrived there with armes and greate store of amunition from forain partes'.⁸⁹ Intelligence sent to Secretary Windebank on 30 July 1640 noted that 'James Arnold's ship has outsailed all the King's ships, and, as report is, came home with all kind of munition'.⁹⁰ It appeared that the Covenanters were well equipped.

Many ships were, however, captured at sea by the Royal Navy: one carrying 300 muskets was captured in April 1640; 'a tall ship, laden with ammunition', was captured in May; also in May, 'four Scotch ships [were brought into Berwick], one of which had 2,000 muskets aboard'; on 8 June the king's Council of War recorded in its proceedings that 'about 5,000 muskets' had been seized at sea; and an intelligence report on 17 June reported that a ship was taken which was 'laden with arms, ammunition, and some ordnance', a cargo which was believed to belong to Alexander Leslie himself.⁹¹ While care must be taken not to count weapons twice, it is clear that thousands of weapons which the Covenanters needed did not reach them. When Leslie wrote to parliament on 2 September 1640, asking for the return of deserters he also asked for 'any uther men who will come, although they want armes, becaus there ar store heir of armes in the armie'.⁹² This also suggests that there were insufficient weapons in Scotland to meet all of the Covenanters' needs, which is confirmed by Cuninghame shipping another 6000 muskets and 4000 pikes to Leith in October 1642 to equip the regiments deploying to Ireland.

⁸⁷ *Svenska riksrådets protokoll. 7, 1637-1639*, p. 278.

⁸⁸ Courthope, *Thomas Cuninghame*, pp. 53-54, p. 95

⁸⁹ Rev W. D. Macray, *Ruthven Correspondence*, (London 1868), pp. 57-58.

⁹⁰ *CSPD 1640*, p. 534.

⁹¹ *CSPD 1640*, p. 63, p. 154, p. 244, p. 273, p. 313.

⁹² Laing, *Baillie*, i, p. 257, ii, p. 470.

There are many ways to explain weapons attrition at this time. Deserters would be unlikely to leave their weapons behind given that they could be sold for profit or given their usefulness for both self defence and banditry. Selling or pawning weapons was specifically forbidden in all of the Articles of War published between 1639 and 1650. Given that there was an escalating scale of punishment for first second and third offences and also punishment for the buyer, this must have been a common problem.⁹³ Weapons, particularly muskets were fragile and easily broken during daily handling, training, in combat and through lack of maintenance. This was seen in the thousands of replacement weapons required by all armies (see below) and by the fact that all infantry companies were established for a Captain of Arms who ‘had oversight of the Arms, that they be fixt and bright [and Turner also believed that] he should be a gunsmith’.⁹⁴ The Covenanters’ training requirement for the whole fencible population (see Chapter 3) required weapons to be held in every shire and burgh: even if there were not enough to equip every man, it was an additional requirement to be met. Other such additional requirements were the garrisons in Scotland (by late 1645 these included some 4100 foot) and the need to arm the ships’ crews for self defence.⁹⁵ A final cause of weapons attrition was the defeat of all or part of an army on the battlefield. The men in a broken and fleeing regiment would have thrown away anything that might slow down their flight. The victor would gather the spoils, or would destroy the weapons they could not transport and civilians would plunder anything left behind if they had the opportunity. Routine weapons attrition was therefore a major problem for all armies of the period.

As will also be seen with the cavalry in Chapter 5, the Covenanters were overcommitted and unable to supply the ASL&C’s infantry with the weapons it required. As shown in Table 2.2, over 3,200 men, or over 15% of the foot, lacked muskets (2903) or pikes (345), in some cases for up to two months after entering England in 1644. While they may have had swords or improvised weapons, this neither indicates a surfeit of weapons, nor an efficient distribution system. According to an audit dated 13 September 1644, the armoury at Leith had issued almost 12,000 muskets in 1644 and had only ‘220 muskets [and] 120 old muskets’ left.⁹⁶ By the end of 1644 the ASL&C had issued its entire stock of 13,291 muskets, including the re-issue of over 500 repaired weapons.⁹⁷ The army only had enough weapons to conduct routine, small scale operations such as patrolling and garrison duties.

As a result, when coming under increasing pressure from the English Parliament to advance southwards, the Scots Commissioners in London were obliged to ask, on 12 February 1645, for 7000 muskets. These were delivered between 18 March and 12 May and surviving records show the issue of

⁹³ *Articles of Militarie Discipline* 1639, Article XX, *Articles and Ordinances of Warre* 1640, 1643, 1644, 1650, Article IX.

⁹⁴ RPS, 1645/1/132, Turner, *Pallas Armata*, pp. 220.

⁹⁵ RPS, 1645/11/61.

⁹⁶ NRS, PA15/3.

⁹⁷ Terry, *Papers Relating to the ASL&C*, i, pp. 19-20, p. 35, pp. 39-104.

2353 muskets and 2632 pikes to ASL&C infantry regiments by May 1645.⁹⁸ It is difficult to estimate what proportion of the infantry this was, but as it is some 25% of the ASL&C's February 1644 strength (see Table 2.1), the 1645 percentage must have been significantly higher. Table 4.6 shows a snapshot of seven ASL&C regiments for which records of weapons issued and of unit strengths coincide.

Examples of Weapons Issued as % of Regimental Strengths				
Regiment	Date	Strength	Equipment Issued	% Replacement
Ludovick Leslie's	May 1645	425	140 muskets, 224 pikes (previous 7 weeks).	86%
Gen Arty's	April 1645	922	203 muskets, 169 pikes (Mar/Apr).	40%
Stewart's	Feb 1645	869	93 muskets, 160 pikes.	29%
Yester's	April 1645	546	80 muskets, 60 pikes.	25%
Dunfermline's	March 1645	673	150 muskets.	22%
Cranston's	May 1645	521	60 muskets, 50 pikes	21%
Rae's	March 1645	482	83 muskets.	17%
Table 4.6 ⁹⁹				

This demonstrates a wide range of deficiencies. Some men lacking a musket or pike are likely to have had swords, but there is no way to estimate how many, particularly because, as General Monck warned, 'half the Swords you have in your Army amongst your common men, will upon the first March you make be broken with cutting of Boughs'.¹⁰⁰ Table 4.6 clearly shows that without re-equipment by the English Parliament in early 1645 much of the ASL&C was not in a fit state to conduct major operations.

This was indeed the message Leven sent to the English Parliament in March via the Scots Commissioners, saying that the army lacked 'Supply of Armes, Ammunition, and other Necessaryes', 'without which [the army's] present Marching cannott bee expected'.¹⁰¹ The same may be said of the Covenanter forces in Scotland following successive defeats at the hands of Montrose at Auldearn, Alford and Kilsyth. On 11 September 1645 the English Parliament recorded that 'a large Proportion of Arms and Ammunition were agreed to be sent into Scotland to supply the Necessities of the Scots Army there'.¹⁰² On 15 September this was described as 'Five thousand Musquets, Three thousand Swords [and] Two thousand Pikes'.¹⁰³ There is no record of such arms being received in the ASL&C or in Leith's armoury: the shipment was almost certainly cancelled on receipt of the news of David Leslie's victory at Philiphaugh on 13 September. In 1645 Covenanter infantry could not have stayed operational in either England or Scotland without the provision of arms and ammunition by the English Parliament.

⁹⁸ JHC, iv, p. 52, p. 302. Terry, *Papers Relating to the ASL&C*, i, pp. 19-20, p. 35, pp. 39-104.

⁹⁹ Terry, *Papers Relating to the ASL&C*, i, p. 63, p. 67, p. 69, p. 74, p. 89, p. 101, p. 104, p. 187, p. 190, p. 196, p. 201, p. 204, p. 222, p. 229, ii, p. 481.

¹⁰⁰ George Monck, *Observations upon Military and Political Affairs*, (London 1671), p. 27.

¹⁰¹ JHL vii, pp. 282-283.

¹⁰² *The Parliamentary or Constitutional history of England*, (London 1763), xiv, p. 50.

¹⁰³ JHC iv, p. 274.

Table 4.7 shows examples of infantry armour held in public armouries, shown at burgh and shire wappenschaws and examples of inventories or observations where such armour is lacking. While there is ample evidence that some body armour was available, exactly how much and whether it was worn by Covenanter pikemen is far less certain. The historiography concerning Royalist and Parliamentary infantry makes clear that armour was unpopular with pikemen and that it was increasingly discarded as time passed.¹⁰⁴ In 1642 Donald Lupton, a minister who had served in Sir Charles Morgan's army in 1627/28 in Germany, wrote *A Warre-like Treatise of the Pike*. He included some insights into the unpopularity of the pikeman's armour. Armour was expensive to purchase and repair, was heavy and uncomfortable and attracted additional costs if transported in wagons to temporarily unburden the men. Another issue was that as most armour was not 'proofed' and therefore unable to stop a musket or pistol ball, most soldiers simply threw it away.¹⁰⁵ In particular, the 11,000 sets of armour taken on the capture of Edinburgh in 1650 is far too high a number to have been a reserve unissued during the campaign which led to Dunbar. If the armour was in the castle's armoury, it wasn't being worn by the Covenanters' pikemen: not issuing it must have been a deliberate decision.

Examples of Body Armour or Lack Thereof	
1638 ¹⁰⁶	Argyll wappenschaws: 8 helmets and 10 sets of armour among 134 fencibles.
1638 ¹⁰⁷	Atholl wappenschaws: 8 helmets, 11 mail coats and 1 jack among 523 fencibles.
Late 1638 ¹⁰⁸	Report of 4000 corslets being landed at Leith.
1639-1643 ¹⁰⁹	Edinburgh: 247 corslets presented by men being made guild brethren.
May 1639 ¹¹⁰	Dumbarton's levy did not have helmets, breast or back plates for pikemen.
June 1639 ¹¹¹	Duns Law: 'of their 12,000 souldiours there was not one that that had any defensive armes, not soe much as a head piece'.
June 1640 ¹¹²	Elgin's contingent's arms listed and did not include body armour.
August 1640 ¹¹³	Report that the Covenanter 'foot are without armour having muskets and swords'.
January 1642 ¹¹⁴	List of arms to be procured for forces going to Ireland did not include body armour.
1644 ¹¹⁵	Leith armoury contained 1000 'stands for footmen of corslets with tassets and headpieces' and 100 'corslets of prooffe with murions [helmets] and nospeices'.
1644-1647 ¹¹⁶	'Whole Charge' of ASL&C did not include body armour for infantry.
February 1644 ¹¹⁷	Spalding list of a soldier's equipment did not include body armour.
December 1650 ¹¹⁸	11,000 sets of armour for footmen in Edinburgh Castle when it was surrendered.
Table 4.7	

¹⁰⁴ Inter alia: Barrat, *Cavaliers*, p. 44. Firth, *Cromwell's Army*, pp. 71-72. Holmes, *Preston 1648*, pp. 11-12. Roy, *Ordnance Papers*, i, p. 7.

¹⁰⁵ Donald Lupton, *A Warre-like Treatise of the Pike*, (London 1642), pp. 102-108.

¹⁰⁶ Atholl, *Atholl and Tullibardine Families*, i, App pp. iii-xxix.

¹⁰⁷ Innes, *Black Book of Taymouth*, pp. 398-404.

¹⁰⁸ Knowler, *Strafforde's Letters*, ii, p. 271.

¹⁰⁹ Charles Watson, *Roll of Edinburgh Guild-Brethren*, (Edinburgh 1929), passim.

¹¹⁰ *Dumbarton Burgh Records*, p. 58.

¹¹¹ Hodgson, *Journal of John Aston*, p. 29.

¹¹² Cramond, *Records of Elgin*, i, pp. 266-267.

¹¹³ *CSPD 1640*, pp. 616-617.

¹¹⁴ *RPCS 1638-1643*, p. 177.

¹¹⁵ NRS, *PA15/3*.

¹¹⁶ Terry, *Papers Relating to the ASL&C*, i, p. 35.

¹¹⁷ Spalding, *Memorials of the Troubles*, ii, p. 320.

¹¹⁸ *Surrender of the [...] Castle of Edinburgh*, p. 6.

The table shows that helmets, breast and back plates were available, but the evidence suggests that armour was little worn, by choice. There was a European precedent about which Robert Barret wrote as early as 1598 when he noted that regiments often included ‘some unarmed pikes, that is without any corslet’ for tasks where mobility was more important than protection. Spanish regiments in Flanders during this period also included both armoured and unarmoured pikemen.¹¹⁹ The list of men sent out by Dumbarton in 1639 carefully recorded their equipment because with minor exceptions it was borrowed, but no body armour is noted. Elgin’s equivalent 1640 document also recorded equipment ownership and again the pikemen were not listed with armour. Such deductions are supported by the eyewitness accounts of John Aston who wrote in June 1639 that not one Covenanter had ‘defensive arms’ and Sir John Clavering who reported in August 1640 that the Covenanter infantry was ‘without armour’.¹²⁰ There was an intelligence report of 4000 corslets being landed at Leith sometime in late 1638, but this does not tally with Aston’s or Clavering’s observations, suggesting that if the report was correct, the armour was not issued.

The evidence for 1644-47 supports similar conclusions. The ASL&C had no infantry armour in its ‘Whole Charge’ which listed everything received from Scots or English magazines between 1 January 1644 and 1 January 1647.¹²¹ Spalding recorded the equipment of the men who marched out of Aberdeen in February 1644 including detail to the level of ‘two vests’ but no helmets, breast and back plates. The whole charge of infantry armour held in the Leith armoury in 1644 was 1100 sets, all of which were still in storage according to the inventory taken on 13 September 1644.¹²² The Act of the Scottish Parliament of February 1647 concerning pay for the new modelled army offered an extra 2 shillings a day to 72 soldiers per regiment if they carried a halberd and wore ‘back breast and head pieces’ as required, presumably in a ceremonial role. This would have been unnecessary if all pikemen were routinely wearing armour. Helmets and armour were therefore available, if in unknown numbers, but throughout the period pikemen generally did not wear them. There would certainly not have been sufficient helmets and armour to equip the entire fencible population of Scotland. The document listing the equipment captured in Edinburgh Castle when it was surrendered in December 1650 included ‘11,000 Armes’, armes being a term which was used for either weapons or armour, but in this case as muskets and pikes are listed separately, it refers to armour. The number is surprisingly high, even if it refers to armour for both cavalry and infantry, but it could plausibly be a misprinted 1100, that being the number of sets of armour previously held in Leith. Regardless, given that the army had been in the field opposing Cromwell since late July, unless pikemen did not routinely wear armour, so much armour would not have been in storage.

¹¹⁹ Parker, *Army of Flanders*, p. 274.

¹²⁰ Hodgson, *Journal of John Aston*, p. 29. *CSPD 1640*, p. 616.

¹²¹ Terry, *Papers Relating to the ASL&C*, i, p. 35-37.

¹²² NRS, *PA15/3*.

The evidence demonstrates that, although there may have been individual exceptions, Covenanter pikemen did not wear back, breast and head pieces from 1639 and in this the Covenanters adopted from the outset what would become common practice for all the protagonists.

Between 1639 and 1651 Swedish Feathers were in service with Covenanter forces, although their use declined from 1645. Also known as swine or swan feathers, they were described by James Turner as ‘stake[s] five or six foot long, and about four finger thick, with a piece of sharp Iron nail'd to each end’.¹²³ They were used in two basic ways: they could be added to defensive works to strengthen them and they could provide a rudimentary defence against cavalry for musketeers. According to Hexham (writing in 1638), similar weapons had been in use across Europe since at least 1594, usually planted in baulks of wood or threaded through pre-drilled holes in long beams, with pairs forming ‘x’ shapes, in both cases forming a portable barrier. These were variously named: in French, cheval de fries; in Dutch, Frisian riders; in German, Spanish riders; and in English, Turnpikes.¹²⁴ Their use by individual musketeers to create a palisade was one of Gustavus Adolphus’ innovations, but this was only practised by the Swedes in Poland between 1626 and 1628.¹²⁵ There were complex versions of feathers which variously incorporated musket rests and blades, but the Scots version was a simple double-ended spear costing 2 shillings Scots in 1639 compared to the 66 shilling cost of a pike in the same year.¹²⁶ Although the use of sharpened stakes or spears to ward off cavalry was hardly novel, in this form these were not traditional Scottish weapons and must therefore be an example of European influence.

The Covenanters did not immediately adopt Swedish Feathers. The list of equipment to be audited in 1638 did not include feathers and neither were they included in the mobilisation instructions of December 1638/January 1639. As discussed in Chapter 2, there were enough veterans in Scotland to have championed these weapons from late 1638, but there is no evidence for them until 27 May 1639, when Balmerino wrote to Leslie to inform him that 3000 ‘sw fetheris’ would be delivered to the army within days. Four days later Wariston noted in his diary that the army still lacked ‘swine feathers’. By 19 June John Aston could report that ‘every musquetier [at Duns Law had] a short staffe shod with iron at both ends’.¹²⁷ The decision to equip musketeers was probably not made until late April or early May, when the Covenanter leadership increasingly realised that they were outnumbered in cavalry, which will be discussed in Chapter 5. Wariston’s diary entry certainly considers the feathers in the context of preparing

¹²³ Turner, *Pallas Armata*, pp. 169-170, pp. 175-176.

¹²⁴ Hexham, *Second Part [...] of the Art Militarie*, p. 32. Hexham, *Third Part [...] of the Art Militarie*, p. 76. Robert Frost, *The Northern Wars 1558-1721*, (Harlow 2000), p. 106. Richard Brzezinski, *The Army of Gustavus Adolphus, Infantry*, (London 1991), pp. 18-19. W Kurrelmeyer, *Friesischer Reiter, 'Cheval de frise'*, *Modern Language Notes*, May 1943, pp. 350-35. Cathal Nolan, *Wars of the Age of Louis XIV*, (London 2008), p. 1, pp. 77-78, p. 461.

¹²⁵ Inter alia. Roberts, *Gustavus Adolphus*, ii, p. 226.

¹²⁶ Ffoulkes, *Tower of London*, ii, pp. 435-436. Marwick, *Burgh of Glasgow*, i, p. 402. Stuart, *Barony of Leys*, p. 227.

¹²⁷ Innes, *Black Book of Taymouth*, pp. 391-392. NRS, PA7/2, GD16/52/19. Laing, *Baillie*, ii, p. 441. Laggan, *Wariston 1639*, p. 50. Hodgson, *Journal of John Aston*, p. 29.

defences. This demonstrated a selective use of military knowledge and experience rather than simply adopting common European practice.

In 1640, descriptions of the Scots infantry included their being equipped with ‘short staves, a yard and a half long, with a pike at either end’ and with ‘half pykes called swans feathers’.¹²⁸ The ASL&C and Leith armoury accounts provide evidence for the use of feathers in 1644/45 as indicated in Table 4.8, but it was far from universal. Of some 30 ASL&C regiments in the accounts, 12 have no records of feathers being issued and only 8 were issued feathers after July 1644. There are no surviving records of issues in the ASL&C after April 1645. The Whole Charge of the ASL&C and the issues in early 1644 suggest that not all musketeers carried them. On 19 July 1644 the ASL&C sent 2725 feathers to the garrison in Berwick where they remained until 2524 of them were returned to the armoury in Leith in 1647.¹²⁹ While this was not the army’s complete stock, there was little subsequent demand for them. In April 1644 500 feathers were issued to a Robert Black for an unspecified task involving the ‘bridge of Leith’.

Holdings/Issues of Muskets and Swedish Feathers			
Date	Source	Swedish Feathers	Muskets
1644-1647	Whole Charge ASL&C	11,500	13,291
1644	Whole Charge Leith	2,574	12,231
13 Sep 1644	Inventory Leith	50	340
Jan-May 1644	Issues to ASL&C	3,328 to 14 Regiments	3,172 to 17 Regiments
May/July 1644	Issue to Berwick Garrison	2,885	479
Feb-May 1645	Issues to ASL&C	1,124 to 06 Regiments	2,353 to 22 Regiments
Table 4.8 ¹³⁰			

On 16 May 1644 feathers were issued from the Leith armoury along with spades and shovels suggesting their use in defensive works. A similar purpose is revealed in the ASL&C’s accounts for 1644-1647 which noted that 271 ‘Swenes feathers’ were ‘given to the warmasters and engineers at several tymes for drawing out of fortifications’, although specific dates are lacking.¹³¹ There is a dearth of evidence until feathers reappear in a list of equipment to be sent to the army in May 1651 and in Stirling Castle’s inventory when it was surrendered the following August.¹³² Feathers, therefore, continued to have utility and although their use by musketeers declined, it is likely that they continued to be used in defensive works until 1651.

Royalist and Parliamentary forces also used feathers, but primarily in the wider defensive role rather than as a musketeer’s weapon. Sir Cheney Culpeper did write to Samuel Hartlib on 20 December

¹²⁸ CSPD 1640, p. 617. Gordon of Gordonstoun, *A Genealogical History of the Earldom of Sutherland*, (Edinburgh 1813, p. 501.

¹²⁹ Terry, *Papers Relating to the ASL&C*, i, pp. 20-143. NRS, PA15/3.

¹³⁰ Terry, *Papers Relating to the ASL&C*, i, pp. 20-143. NRS, PA15/3.

¹³¹ Terry, *Papers Relating to the ASL&C*, i, p. 141. NRS, PA15/3.

¹³² Stevenson, *Scotland under the Covenanters*, p. 161. *A letter of the Surrender of Stirling Castle*, (London 1651), p. 5.

1643 noting that his local trained band were ‘to carie sixe foote firre trunchions spiked at bothe ends insteade of restes’, but there is a lack of subsequent examples of their use by musketeers.¹³³ In December 1638, ‘Sir Jacob Astley, sergeant major general’ was despatched by the king to the north of England charged with ‘putting the forces of those counties, towns, and places in order and readiness for defence’.¹³⁴ His recommendations for Newcastle included the construction of a cheval de fries on the bridge over the Tyne. Being a veteran of Dutch service he used the Dutch term (noted above) to describe it: ‘ffreese Rooter’.¹³⁵ By the end of September 1642, work carried out on Gloucester’s defences included the construction of ‘ten iron-bound turnpikes’ on the city’s approaches.¹³⁶ In October 1642, five regiments of Essex’s army in Worcestershire took ‘swans feathers’ with them on a mission, but they were listed with the artillery train, not with the infantry.¹³⁷ The accounts for the earl of Essex’s train of artillery show holdings of at least 8,000 ‘swead feathers’ between March 1643 and May 1644. One reference lists them with ‘shovels & spades’, suggesting their use in defences.¹³⁸ When Sir Ralph Hopton’s men were ambushed before the Battle of Sourton Down in April 1643 they lost ‘swans feathers and much other pillage’. In Hopton’s account of the subsequent battle he clearly describes using ‘Sweads feathers’ to protect his artillery, not his infantry.¹³⁹ On 16 October 1643 the House of Commons ordered that equipment including ‘Sweds Feathers’ be sent to the garrison of Gloucester, suggesting their use in the city’s defences as in 1642, although they could have been used in other ways.¹⁴⁰ *Mercurius Rusticus* dated 26 October 1643, referred to ‘swedes feathers’ not as a musketeer’s weapon but as an ‘engine to secure a passage’.¹⁴¹ ‘1000 Sweades Feathers’ were included as part of the English Parliament’s Jersey expedition of early 1645, but they were again listed as part of the artillery train and not of the expedition’s infantry regiment.¹⁴² Feathers were undoubtedly in use, and although there was an awareness of their use by musketeers, their primary use by Royalist and Parliamentarian forces was in defensive works.¹⁴³

A considerable number of feathers were placed in storage in Berwick immediately after Marston Moor, suggesting that not everyone was convinced of their continued utility as a defence for musketeers. Such scepticism would have been unlikely before Marston Moor, the Covenanters’ first major set piece battle. It is probable, therefore, that those Covenanter regiments which had been issued feathers carried them into battle where they made little difference to performance. In the months before the battle, feathers

¹³³ Hartlib MS 13/23A, /22B.

¹³⁴ CSPD 1638-1639, p. 131, p. 155.

¹³⁵ DNB, *Jacob Astley*. Richard Welford, *The Walls of Newcastle in 1638*, *Archaeologia Aeliana*, Vol 12, 1887 p. 232.

¹³⁶ John Rhodes, *The Civil War Defences of Gloucester*, Trans Bristol and Gloucestershire Archaeological Society, 132, (2014), p. 160.

¹³⁷ *Weekly Intelligencer 10-18 October 1642* in Malcolm Atkin, *The Civil War in Worcestershire*, (Stroud 1995), p. 39.

¹³⁸ Marsh, *Train of Artillery*, ii, pp. 105-137.

¹³⁹ *A Full relation of the great defeat given to the Cornish Cavalliers, by Sergeant Major Generall Chudley*, (London, 31 May 1643), p. 5. Chadwick, *Bellum Civile*, p. 39.

¹⁴⁰ *JHC*, iii, p. 277.

¹⁴¹ *Mercurius Rusticus*, 26 October 1643, p. 6.

¹⁴² *JHL*, viii, pp. 213-214.

¹⁴³ Barrieffe, *Military Discipline*, p. 336. Ward, *Animadversions*, p. 393.

were issued to at least 10 of the 15 regiments present at Marston Moor. The number per regiment varied between 96 and 753, but 8 regiments had 300 or more. Of these 10, 4 and part of a fifth held their ground and 5 and part of a sixth broke and ran. Lindsay's and Maitland's regiments, both held their ground and withstood multiple cavalry charges: Lindsay's had been issued feathers and Maitland's had not. Regiments continued to be issued feathers at least until April 1645, albeit in smaller numbers, suggesting that individual colonels remained advocates for their use, possibly in siege works. Similarly, the ASL&C returned no feathers to Leith in 1647, while meticulously accounting for 239 which were broken or lost. This means that 3,203 were used elsewhere, probably in defensive works during sieges as cheval de fries or turnpikes.¹⁴⁴ They remained in service (although there is no evidence of their use in Ireland at any time) until 1651, but after Marston Moor brought into question their real value on the open battlefield, they would have been used in defences and obstacles.

While in theory the entire fencible population was organised into 'reserve' regiments which mirrored those of the field armies and could be called out in emergencies, the reality was very different. Replicating basic regimental structures presented no challenge and local variations owing to population density would have presented no problems per se. However, given that the total number of fencibles (using the 1643/44 levy figures) was some 129,000 men, fully equipping them as pikemen and musketeers would have been impossible at any point with the resources available to the Covenanters. It was not until the levy Act of July 1650 that the impracticality of calling out the entire fencible population as a last resort was acknowledged.¹⁴⁵ That Act reduced the number of men in the final reserve, to 24,000, but that was still in addition to the regiments already mobilised: a proportion of men must have had improvised weapons or no weapons at all. There is no evidence for these regiments having regimental guns and the difficulty in providing enough artillery for the main field armies from 1648 makes it certain after that date. The deeper into the population the levying delved, the less enthusiastic, trained and equipped and the more unreliable the infantry became. The idea of organising the entire fencible population into a deployable force which could be mobilised in part or in whole at short notice was immensely ambitious and simply beyond the resources of the kingdom to deliver.

Effectiveness

Infantry formed the backbone of most mid-seventeenth century European armies. It is unsurprising therefore that infantry was the largest component of Covenanter armies. The proportions of cavalry and infantry in Covenanter armies will be considered in Chapter 5. Infantry provided a combination of offensive and defensive capability which neither cavalry nor artillery could match; it could move and

¹⁴⁴ C. H. Firth, *Marston Moor*, Transactions of the Royal Historical Society, Vol 12, 1898, pp. 17-79. Terry, *Papers Relating to the ASL&C*, i, pp. 20-143.

¹⁴⁵ RPS, *A1650/5/116*.

fight in difficult terrain where the other arms could not deploy; its numbers were essential, inter alia, for providing garrisons and for conducting siege operations; and, per man, it was the least expensive arm to raise and maintain. Covenanter infantry was organised and equipped to be able to meet these requirements, all of which at various times it was called upon to execute. Nevertheless, infantry was only one part of an army's capability and to be fully effective its actions had to properly integrated with the other arms on the battlefield, particularly the cavalry. This was also a requirement in garrisons, although to a lesser extent according to the importance of the location. In a battle, therefore, the success or failure of an army depended on the performance of both the cavalry and the infantry: in normal circumstances the defeat or retreat of either one invariably meant the defeat of the other.

Between 1639 and 1651 the Covenanters' fought in 17 significant battles and eight sieges of varying scale, as shown in Table 4.9.

Assessment of Infantry Performance in Battles and Sieges			
Date	Battle/Siege	Outcome	Infantry Performance
28 Aug 1640	Newburn	Victory	Not engaged.
24 Mar 1644	Boldon Hill	Stalemate.	Skirmishing only.
2 Jul 1644	Marston Moor	Victory	37% held ground, 63% routed— most with little resistance.
1 Sep 1644	Tippermuir	Defeat	Infantry routed – most with little resistance.
13 Sep 1644	Aberdeen	Defeat	Infantry routed after hard fight.
24 Oct 1644	Fyvie	Defeat	Infantry defeated and withdrew.
2 Feb 1645	Inverlochy	Defeat	Infantry routed – most with little resistance.
9 May 1645	Auldearn	Defeat	Infantry routed – most with little resistance.
2 Jul 1645	Alford	Defeat	Infantry routed – most with little resistance.
15 Aug 1645	Kilsyth	Defeat	Infantry routed – most with little resistance.
13 Sep 1645	Philippaugh	Victory	Cavalry and dragoons, no infantry per se.
5 Jun 1646	Benburb	Defeat	Infantry routed after hard fight.
17 Aug 1648	Preston	Defeat	Infantry routed after hard fight.
27 April 1650	Carbisdale	Victory	Not engaged.
3 Sep 1650	Dunbar	Defeat	Infantry routed – most without resistance.
20 July 1651	Inverkeithing	Defeat	Infantry routed – most with little resistance.
3 Sep 1651	Worcester	Defeat	Infantry routed after hard fight.
Sieges ¹⁴⁶			
Jun-Sep 1640	Caerlaverock	Victory	Castle surrendered.
Mar-Sep 1640	Edinburgh	Victory	Castle surrendered.
Jun-Jul 1644	York	Victory	City surrendered.
Jul-Oct 1644	Mingary	Defeat	Siege abandoned.
Aug-Oct 1644	Newcastle	Victory	City stormed and captured by infantry.
Oct 44-Jun 45	Carlisle	Victory	City surrendered. Cavalry and dragoons, no infantry per se.
Jul-Sep 1645	Hereford	Defeat	Siege abandoned.
Nov 45-May 46	Newark	Victory	City surrendered.
Table 4.9 ¹⁴⁷			

¹⁴⁶ There were also a number of small scale sieges (typically, but not always, of fortified houses) in Scotland throughout the period which are not included in the table for simplicity.

¹⁴⁷ Inter alia. Terry, Alexander *Leslie*. NRS GD406/1/1242. Laing, Baillie, i, pp. 260-261. Balfour, *Historical Works*, ii, pp. 402-403. Reid, *Crown, Covenant and Cromwell*. Cowan, Montrose. Buchan, *Montrose*. Young, *Marston Moor*. Stevenson, *Alasdair MacColla and the Highland Problem*, pp. 111-139. John McDonnell, *Another Look at the Battle of Benburb*, *Journal of the Armagh Diocesan Historical*

The actions at Newburn (1640), Marston Moor (1644), Philiphaugh (1645) and Carbisdale (1650) were successful, but Covenanter infantry only played a major role in the victories at Marston Moor and Philiphaugh. This must be caveated by the fact that two thirds of the infantry were routed at Marston Moor and at Philiphaugh the infantry was a mixture of dragoons and commanded men, making it unrepresentative of the mass of the infantry. With the exception of the inconclusive engagement at Boldon Hill (1644), the remainder were all defeats which saw the Covenanter infantry routed. Six of the eight sieges were successful, with the Siege of Mingary (1644) abandoned by the Campbells on the approach of MacColla's forces and that of Hereford (1645) abandoned in the aftermath of Montrose's victory at Kilsyth (1645). The infantry carried out the various blockading and besieging tasks effectively, including dealing with sorties by the garrisons, noting that the infantry at Carlisle were dragoons. Only at Newcastle did the infantry have to assault the city through breaches in the walls, attacks which were described as 'hot work', but the 'Resolutions of the Officers and Souldiers' allowed them to prevail.¹⁴⁸ Covenanter infantry was capable of hard fighting, as demonstrated by Lindsay's and Maitland's regiments at Marston Moor, the Buchanan and Maclean clan regiments at Inverkeithing and the infantry under Pitscottie at Worcester.¹⁴⁹ Nevertheless, Table 4.9 shows that the most common outcome was that the infantry was routed. To fight effectively, a force must be better prepared than its enemies, particularly in key areas such as leadership, motivation, training and equipment. The strength of the infantry in these areas will be considered below.

Although the evidence is limited, it is clear that a proportion of the officer corps (corporals and above) was committed and motivated, albeit that this was undermined by tangled loyalties from the Engagement onwards. In addition to the senior commanders considered in Chapter 1, more junior officers served multiple times, thereby gaining in knowledge and experience. Although there is no record of him in 1639, other than as an MP, Sir Patrick Mackie of Larg served in 1640/41 and again with the ASL&C.¹⁵⁰ Sir James Somerville served in both Bishops' Wars and in the ASL&C, progressing from lieutenant to lieutenant colonel.¹⁵¹ George Porterfield commanded one of Glasgow's companies in both Bishops' Wars and in the ASL&C in 1644.¹⁵² He lost only 12 men over 14 months in 1640/41 which suggests a highly effective leadership style, as it does for all the officers in Montgomery's regiment whose wastage rate in all companies was similarly low (see Table 4.2). When Edinburgh raised a regiment in September 1648, three of the captains were volunteers who had served in the ASL&C.¹⁵³ To

Society, 1979. Bull Stephen, Seed Mike, *Bloody Preston*, (Lancaster 1998). Firth, *Battle of Dunbar*, pp. 19-52. Atkin Malcolm, *Worcester 1651*, (Barnsley 2008). Cooke David, *The Civil War in Yorkshire*, (Barnsley 2004).

¹⁴⁸ *A Letter from Newcastle [...] Containing a Relation of the taking of the Town of Newcastle by Storm*, (London, Octob 26 1644).

¹⁴⁹ Inter alia. Firth, *Marston Moor*, pp. 50-51. Kenyon and Ohlmeyer, *Civil Wars*, p. 70. Atkin, *Battle of Worcester*, p. 88.

¹⁵⁰ Angus Mackay, *The Book of Mackay*, (Edinburgh 1906), p. 355-356. Furgol, *Regimental History*, p. 146.

¹⁵¹ Somerville, *Memorie of the Somervilles*, ii, p. 191, p. 223. Furgol, *Regimental History*, p. 124.

¹⁵² Marwick, *Burgh of Glasgow*, i, p. 399, p. 412, ii, p. 64

¹⁵³ Wood, *Burgh of Edinburgh 1642-1655*, p. 166.

these must be added the officers who were motivated enough to join the army even after being barred by the Act of Classes of January 1649, spurning an excuse to stay safe and knowing that they were at risk of being purged.¹⁵⁴ Commitment and motivation are not necessarily indications of quality, however. These men were good enough to make the armies function on a daily basis and to fight when required, but not good enough regularly to lead men to victory.

A major leadership problem was officer absenteeism. Officers were permitted to go home on leave for months at a time and were often late returning or returned not at all. Two captains in Montgomery's regiment were each granted 3½ months leave in 1640, a custom which appears not to have been addressed until 1648 when officers were only permitted leave of less than a month.¹⁵⁵ When the ASL&C invaded England in January 1644, it did so without 'many of the officers' of every rank who were 'lingering behind', in Scotland.¹⁵⁶ The situation had not improved by July 1644 when the Committee with the Army complained of 'the multitude of absent officers who [...] so long desert their charges'.¹⁵⁷ The deleterious effect of such absenteeism was clear to see when the garrison of Newcastle attacked the besiegers on 20 and 24 August 1644. Robert Douglas, an eyewitness, wrote pithily that 'the souldiers ran away [because] the officers were not there'.¹⁵⁸ Absenteeism continued in 1645 prompting legislation demanding 'that all officers of the army attend their charges'.¹⁵⁹ By March 1646, the Committee of Estates with the Army had ceased to meet, being unable to find the necessary quorum of 7 of 26 members, a damning indictment of the ASL&C's culture.¹⁶⁰ In 1650, David Leslie wrote of the defeat at Dunbar that 'we might have as easily beaten them, as we did James Graham at Philiphaugh, if the officers had stayed by their troops and regiments' overnight.¹⁶¹ It must be noted, however, that this was not a problem unique to Covenanter forces, although space allows only a few examples to illustrate this. In 1640 a royal proclamation stated that 'many Officers of our Armie [...] are absent from their several charges to Our great disservice, and their owne shame and dishonour'. In March 1644 Royalist officers were ordered return 'to their Collours on payne of death'.¹⁶² A month later Sir William Waller, the Parliamentarian general, issued a proclamation also threatening death to any of his 'officers of all degrees [that] are at this present absent in and about the City of London' who did not return to their regiments then in Wiltshire.¹⁶³ Officers cannot lead their men if they are not with them and a regiment could quickly become an armed mob without that necessary leadership.

¹⁵⁴ RPS, 1649/1/43.

¹⁵⁵ NRS, GD3/9/5/4/6. RPS 1648/3/104. William Mure, *History and Descent of the House of Rowallane*, (Glasgow 1825), pp. 137-138.

¹⁵⁶ RPS, 1644/1/68.

¹⁵⁷ RPS, A1644/6/5.

¹⁵⁸ Burns, *Diary of Mr Robert Douglas*, pp. 70-71.

¹⁵⁹ RPS, 1645/7/24/30.

¹⁶⁰ RPS, 1643/6/92, 1644/1/62, NRS PA11/4/190.

¹⁶¹ NRS, GD40/2/4/27.

¹⁶² Larkin, *Stuart Royal Proclamations*, ii, pp. 715-716, p. 1007.

¹⁶³ John Adair, *The Court Martial Papers of Sir William Waller's Army 1644*, JSAHR, December 1966, pp. 208-209.

It was not only the officers who abandoned their colours: men who had been coerced into serving deserted at the earliest opportunity. As early as 27 May 1639, Balmerino wrote to Leslie telling him that ‘Wee are miserablie vexed with yor runagate sogeris’.¹⁶⁴ In 1640 some 4000 men deserted in August and September alone, approximately 17% of the army.¹⁶⁵ When raising the regiments for Ulster, the Privy Council faced the simultaneous challenges of finding recruits and stopping desertion, which it addressed by handing the problem over to the regimental colonels. The colonels proved it could be done: the regiments’ average strength when mustered in Ireland was over 1000 officers and men, but desertion soon became a problem again.¹⁶⁶ By mid-July 1644 both Leven and the Committee with the Army wrote to the Committee of Estates urging action on levy shortfalls and deserters, also noting the urgent requirement for reinforcements.¹⁶⁷ Eighteen months later, Parliament became so frustrated with domestic efforts to arrest deserters that they gave ‘power and warrant to the officers of the several regiments to try out and pursue the harbourers of runaways of their regiments’.¹⁶⁸ The endemic problem of desertion and the need to coerce men to serve was only exacerbated by divisions in society during the Engagement and in its aftermath. Again, however, these were problems faced by all the protagonists. Donagan summarised the issue by saying that ‘desertion was chronic in civil war armies’ and Parker calculated that European armies in the early modern period could lose ‘roughly a quarter of [their] total strength per year’ to desertion and disease.¹⁶⁹

The training and equipping of the infantry is considered above and in Chapters 2 and 3. The Covenanters trained their troops to a basic and uneven standard before they reached the army rendezvous, largely because enthusiasm for the task varied so widely across the shires. They also struggled to equip their armies, relying to a significant extent on the English Parliament between 1642 and 1646 after which that source of arms was lost. Covenanter infantry was weak in the functional areas identified above: leadership, motivation, training and equipment. This made it capable of producing extremes on the battlefield which was amply demonstrated at Marton Moor. Lumsden wrote to Loudon describing both ‘these that fled [...] with a panatick fear’ and those who fought ‘extraordinar well’. In fairness these are descriptions which could have been applied to men in all the armies engaged that day and in many other battles.¹⁷⁰ The evidence clearly shows that the Covenanters’ infantry was badly beaten in battle far more often than it prevailed.

¹⁶⁴ Laing, *Baillie*, ii, p. 441.

¹⁶⁵ Laing, *Baillie*, i, pp. 260-261. *CSPD 1640-1641*, p. 136.

¹⁶⁶ *RPCS, 1638-1643*, p. 200, p. 206, p. 228. Stevenson, *Scottish Covenanters and Irish Confederates*, pp. 325-329. HMC, *Tenth Report*, App 1, p. 78.

¹⁶⁷ Birch, *Papers of John Thurloe*, i, p. 39. RPS, *A1644/6/5*.

¹⁶⁸ RPS, *1645/11/60*.

¹⁶⁹ Donagan, *War in England*, p. 8. Parker, *Military Revolution*, p. 56.

¹⁷⁰ Lumsden, *The Glorious and Miraculous Battell at York*, p. 1.

Conclusion

The Covenanters aspired from the outset to field infantry that conformed to the contemporary European models in its organisation and doctrine. That infantry was to be organised as regiments and equipped with muskets and pikes in a 2:1 ratio. During the Bishops' Wars this was achieved with the bulk of the forces mobilised, although the infantry was neither uniformly organised nor equipped. Some variations were a result of local issues such as the availability of weapons, but there were also discretionary differences made by individual colonels. There were discernible influences from France, Holland, Spain and Sweden from the outset, demonstrating the influence of veterans with experience of those countries' armies. The 1642 muster records for the regiments in Ireland and the reports on the ASL&C in 1644 make clear that the standard structure was of ten companies, but there remained variations. This basic structure of companies subordinated to a regiment endured until the Battle of Worcester in 1651. The 'reserve' regiments mirrored this, although demographics had more of an impact on the size of regiments. Covenanter infantry was as modern in its organisation, as any contemporary English, Irish or European infantry.

The core equipment of the infantry was the musket and pike combination which enabled the delivery of firepower and shock action which was standard European practice. Regiments were, for part of the period, also equipped with regimental guns and Swedish Feathers. Their primary purpose was to improve the infantry's ability to withstand cavalry attack, reflecting the Covenanters' general weakness in that arm. In other armies both guns and feathers were common, although their guns were part of the Train, not embedded in regiments and their feathers were not carried by their infantry. Deliberate decisions had been taken to equip the infantry with guns and feathers, but they did not deliver the expected tactical advantages. Covenanter armies from 1648 still used such guns and feathers, but they were held no longer integral to the regiments. The 'reserve' units were intended to be armed with a pike and musket mix, but in reality were equipped with whatever was available. The Covenanters also followed common sense European trends with equipment, such as discarding body armour for pikemen as the monetary cost and the effort taken to carry it was not warranted by the limited protection it offered, particularly against firearms. It was not the types of equipment used which set the Covenanters at a disadvantage, but the lack of sufficient quantities to keep their armies combat ready.

Infantry formed the majority of every Covenanter army, with the exception of the forces at Philiphaugh and Carbisdale (see Table 5.4). The infantry needed large numbers of officers and men, but it drew on a fencible population in which the number of consenting and compliant men was finite, making this an ongoing challenge. Once regiments assembled to march to the army rendezvous, they immediately

faced two problems. The first was significant numbers of both officers and men failing to report for duty and the second was dealing with officer absences and desertion from the ranks. This was difficult enough when only a single army was raised, particularly from the Engagement onwards, but sequential mobilisations exacerbated the problem. Raising the Ulster army, the first and second tranches of the ASL&C and then multiple forces to fight Montrose and MacColla represented at least six separate trawls into an increasingly shallow pool of consenting and compliant men. When this is considered in the context of low levels of training and an almost unrelieved sequence of battlefield defeats, the impact on the men's confidence must have been severe. This is best seen in the consistent failure of the infantry fighting Montrose and MacColla and does much to explain the fencibles refusal to mobilise at all in the aftermath of Kilsyth in 1645 (See Chapter 2). There were too few of Wigram's gutful men to counterbalance the compliant and coerced majority to make the infantry effective in major combat operations.

Chapter 5 - Cavalry

Introduction

Covenanter cavalry carried out the same tasks as the cavalry in other contemporary Western European armies, which included combat, patrolling and raiding.¹ Cavalrymen were also equipped in much the same way as those of other armies, although some Covenanters carried light lances which was unusual.² The cavalry was initially organised as individual troops, but between 1642 and 1644 the majority were organised as regiments: multiple troops commanded by a colonel, supported by a staff.³ Covenanter cavalry adopted the tactic of shock action, (charging the enemy at full gallop) the re-emergence of which had been the most significant development in Western European cavalry tactics in the early seventeenth century.⁴ To be effective against a well-trained and disciplined force, a charge had to be coordinated with firepower. Such shock action was integrated with artillery firepower at Newburn (1640) to force the passage of the Tyne and with dragoon firepower at Marston Moor (1644) to defeat Newcastle's Whitecoats.⁵ An examination of the numbers of cavalry in Covenanter armies (see Table 5.4) shows that, compared to other British and European forces, the Covenanters were generally weaker in this arm. This was compounded by problems with the availability of both equipment and good quality horses. This chapter will consider the leadership, organisation and equipment of the Covenanter's cavalry to determine its effectiveness.

As outlined in the Introduction, the historiography offers few insights into Covenanter cavalry. Although the change from troops to regiments is noted, it is not considered in a wider context reflecting the European debate on the utility of the regiment.⁶ Consideration of cavalry organisation tends to be based on levy documents which detail what was planned, not what was actually raised and fielded, a clearly inaccurate interpretation.⁷ This is a significant gap, overlooking the different regimental structures which were adopted, particularly in the ASL&C, but also changes made thereafter.⁸ Another gap is the superficial consideration of dragoons and their role. This omits the debate about whether to integrate them into cavalry regiments; it overlooks the importance of their operational mobility; and that dragoons were a logical tactical development replacing commanded infantry operating in support of cavalry operations.⁹ The use of lancers by the Covenanters is often contrasted with their obsolescence in Europe, but the

¹ Cruso, *Instructions for the Cavalry*, 1644.

² See Table 5.2. Inter alia. Barratt, *Cavaliers*, p. 25. Young, Holmes, *English Civil War*, pp. 41-42.

³ Gordon, *Scots Affairs*, ii, p. 205. JHL, iv, p. 454.

⁴ Black Jeremy, *Cavalry a Global History*, (Barnsley 2023), p. 115.

⁵ Rushworth, *Historical Collections*, iii, p. 1237. Somerville, *Memories of the Somervilles*, ii, pp. 347-348.

⁶ Furgol, *Regimental History*, p.8.

⁷ Inter alia. Furgol in *Scottish National Covenant*, pp. 143-144. Reid, *Crown, Covenant and Cromwell*, pp. 40-41, p. 378. Singleton, *Famous by My Sword*, p. 11.

⁸ Terry, *Papers Relating to the ASL&C*, pp. 125-139.

⁹ Firth, *Cromwell's Army*, p. 124. Barratt, *Cavaliers*, p. 57. Furgol *Regimental History*, p. 9. Gentles, *New Model Army*, pp. 25-28. Reid, *Scots Armies*, i, p. 22. Roberts, *Cromwell's War Machine*, p. 121. Young, Holmes, *Civil Wars*, p. 42.

obsolete heavy lancer had nothing in common with the Scots lancer – not even the type of lance.¹⁰ Other than references to firearms and lances, there are few descriptions of Covenanter cavalry equipment in the scholarship. Where there are descriptions, such as those of Furgol, Johnston and Stevenson, the evidence cited is partly or wholly taken from levy documents, whose requirements (as described below and in Chapter 3) were seldom met in practice. Others, such as Reid and Singleton, take Spalding's description of each cavalryman entering Aberdeen in 1639 being armed with four pistols and a carbine either as typical for the year or typical for some cavalry units across the whole period.¹¹ This thesis addresses these gaps, adding clarity and better understanding to the current scholarship.

Sources And Methodology

An analysis of the effectiveness of the Covenanter cavalry capability must address the issues raised above and consider how cavalry influenced the outcome of battles and sieges. The importance of cavalry on the seventeenth century battlefield and the high profiles of many of its commanders means that reports of its activity feature in many sources. There are numerous references in both Scottish and English Parliamentary records. The Scottish Acts for levying and for pay provide detailed examples of planned organisations, although they do not always reflect the organisations which were actually raised. The English records include details of the weapons with which the ASL&C cavalry was supplied, which can often be tracked to regiments through the accounts of the ASL&C itself, another valuable source. The part cavalry played in battles is described in detail for many actions, including by some of the cavalry commanders themselves, both in letters and broadsheets. It also featured in intelligence reports and routine correspondence reflecting the inherent threat it posed because of its higher levels of mobility. There is only fragmentary evidence of the quality of both the men and horses of the Covenanter cavalry, but sufficient for a basic assessment to be made.

Analysing how Covenanter cavalry was organised and equipped will reveal how the Covenanters planned to employ it as these were key factors in implementing their preferred tactics. A timeline can be developed using levy instructions to illustrate what was intended, while local records and intelligence reports identify what happened in practice and army and armoury accounts (where they survive) allow changes to be tracked over time. This will allow the degree to which Covenanter cavalry reflected common European practice or other influences to be established. There is sufficient evidence to determine the strength of the cavalry component of the various forces across the period and to analyse the contributions made to battles and sieges. This provides a means of assessing its overall effectiveness

¹⁰ Barratt, *Cavaliers*, p. 25. Furgol in *Scottish National Covenant*, p. 144.

¹¹ Furgol in *Scottish National Covenant*, p. 144. Johnston, *Essential Agony*, p. 63. Stevenson, *Church and State*, p. 362. Reid, *Crown, Covenant and Cromwell*, p. 378. Singleton, *Famous by My Sword*, p. 11.

between 1639 and 1651 and of identifying any improvement or decline in performance. Analysis of changes over time will show how well the Covenanters understood cavalry capability and how to use it effectively.

Organisation

The organisation of cavalry across Western Europe was the subject of debate in the 1630s and 1640s. Historically, the basic unit had been the troop, which was of no fixed number. A number of troops could be put under one officer's "regiment" or authority for a battle or some other purpose after which the troops separated again. The debate was over whether such regimental structures should be made permanent. The Swedes adopted a standard regimental structure in 1630 and as did both the French and the Dutch in 1635. A committee of the English Parliament reported in November 1641 that 'the general Practice of all Nations, as the Germans, Swedes, French, etc [is to form] their Cavalry into Regiments'.¹² The Covenanters took until November 1643 to embrace this change when an Act of the Committee of Estates ordered the cavalry of the ASL&C to be organised as 'seven Regiments, each Regiment consisting of eight Troupes'.¹³ Adoption of regimental structures did not preclude the use of individual troops and the Covenanters continued to use them as bodyguards and in garrisons, for example.¹⁴

The detailed organisation of Covenanter cavalry in 1639 is unclear, but the evidence shows unit strengths which are too great to be single troops. Spalding described Montrose's mounted men at Turreff in February 1639 as being 'about nyne score' and the earl of Traquair's account of the capture of Dalkeith House in March 1639 refers to a Covenanter force including '500 Horsemen'.¹⁵ In April Lord Johnstone commanded a force of '200-300 horsemen' on the western border and in May 1639 the earl of Eglinton's horsemen consisted of '100 gentlemen, [and] 200 yeomen with jack and speir'.¹⁶ This evidence suggests several troops grouped under a single commander, which had been the standard European practice and was also the usual organisation of Royalist cavalry during the Bishops' Wars.¹⁷ Royalist reports of Covenanter activity confirmed the grouping of troops of cavalry with the earl of Lothian's and Harry, Lord Ker's infantry regiments, a practice that was not uncommon, but hardly universal.¹⁸ All such troops could be concentrated if required, which is seen in Spalding's description of Newburn in August 1640. He wrote that Leslie ordered forward the Fife Troops, Ramsay's Troop, Hope's Troop and the College of Justice's Troop, 'amounting in all to 1500' to prevent the Royalists recovering their abandoned artillery.

¹² *JHL*, iv, p. 454. Roberts, *Gustavus Adolphus*, ii, p. 223. Hexham, *First Part [...] of the Art Military*, endpiece. Turner, *Pallas Armata*, p. 232. Lynn, *French Army*, p. 493.

¹³ Primerose, *Act of the Committee of Estates*, 26 November 1643.

¹⁴ Terry, *Papers Relating to the ASL&C*, p. lviii, p. 138. Furgol, *Regimental History*, inter alia: p. 110, p. 122, p. 124, pp. 127-131, p. 142.

¹⁵ Spalding, *Memorials of the Troubles*, i, p. 136, p. 154. Nalson, *Impartial Collection*, i, p. 214.

¹⁶ Furgol, *Regimental History*, p. 27. HMC, *Manuscripts of the Earl of Eglinton*, pp. 35-36.

¹⁷ Rushworth, *Historical Collections*, iii, pp. 926-927, pp. 1048-1049. *CSPD 1640*, p. 581. *CSPD 1640-1641*, pp. 79-80.

¹⁸ *CSPD 1640*, p. 529.

This shows the cavalry being used en masse, although with no indication of how they were organised above troop level, and no evidence of European influence.¹⁹

The Covenanters were therefore slow to adopt regimental structures thereby forgoing the benefits of improved flexibility and responsiveness derived from its more efficient chain of command. This was because, using the ASL&C mobilisation example, the general of horse would only have had to give orders to seven regimental commanders rather than fifty-six troop commanders. Other advantages included having a lieutenant colonel, major, regimental quartermasters, surgeons and ministers.²⁰ The regiment was the most effective way, but not the only way, to use cavalry in “set piece” battles, but until Marston Moor in July 1644, the Covenanters simply had not fought in any, meaning that there had been no urgent need for change.

A partial regimental structure was first adopted in April 1642 when the English Parliament agreed that ‘there shall be allowed to the [ten] Horse Troops of the Scotts Army, employed in Ireland, a Colonel, a Serjeant Major, and Quarter Master’.²¹ Given that the Covenanters’ first levy in September 1643 ordered the raising of troops not regiments, this must have been an English Parliamentary initiative for the Ulster levy. Regimental structures were adopted for the ASL&C when the Committee of Estates passed an Act on 26 November 1643 reorganising the cavalry levy to raise regiments rather than just troops, although individual troops were also levied for specific roles as described below.²² The impetus for change was David Leslie’s return to Scotland from Germany by 28 August and his subsequent commissioning as the major general of horse.²³ These structures were retained in all the field armies in England, Scotland and Ireland until the army was new modelled in January 1647 when the cavalry reverted to troops, but that army was not designed to be a warfighting force.²⁴ Regimental structures were re-adopted in the Engagers’ levy of May 1648 and Major General John Lambert subsequently reported that four Covenanter regiments of horse, each of seven troops, had crossed the border into England.²⁵ Regiments remained the standard unit thereafter. The increased likelihood of fighting major battles which intervention in the English Civil War in 1644 would entail, combined with the return of David Leslie, prompted the Covenanters to adopt European best practice, of which they were already well aware.

¹⁹ Spalding, *Memorials of the Troubles*, i, p. 335.

²⁰ RPS, 1643/6/83, 1645/1/132, 1646/11/29, 1646/11/270.

²¹ JHC, ii, p. 513.

²² Primerose, *Act of the Committee of Estates*, 26 November 1643.

²³ RPS, 1643/6/46.

²⁴ RPS, 1646/11/182.

²⁵ RPS, 1648/3/104. *Act Anent the Leavies of Horse and Foot [etc]*, (Edinburgh, 4 May 1648). *A Declaration from Scotland Concerning the Advance of the Scots Army*, (London 1648).

The regimental structure was not dogmatically enforced and flexibility was retained in the shape of at least 32 independent troops of horse which existed for varying lengths of time between 1644 and 1647.²⁶ Four of these were with Leven in January 1644, ten with Callendar in June 1644, while the remainder appear in the record at various dates between 1644 and 1646. Five were lifeguards and the remainder appear to have been standard cavalry troops, including five troops raised in Ulster.²⁷ At least three were embedded in ASL&C infantry regiments (Ludovick Leslie's, Lumsden's and Stewart's), and a further six troops formed part of the permanent garrisons in Inverness, Aberdeen, Stirling and Glasgow from December 1645.²⁸ When the Scots Parliament nominated the cavalry colonels in December 1650, the list included both regimental and troop commands demonstrating that the Covenanters continued to understand the utility of and the flexibility offered by troops of cavalry when carrying out tasks other than fighting battles.²⁹

Table 5.1 shows the four types of horseman identified in Ward's 1639 *Animadversions of Warre*.

Ward's Categories of Horseman		
Category	Armour	Arms
Cuirassiers	Fully armoured.	Pistols and swords.
Harquebusiers	Helmets, buff/leather coats, breast and back plates.	Arquebus or pistols, and swords.
Carabiners	Buff/leather coats.	Carbines and swords.
Dragoons	Unarmoured.	Pike or musket and swords.
Table 5.1 ³⁰		

The Covenanters fielded horsemen which were a combination of the harquebusier and the carabiner, some of whom carried a light lance, and dragoons which were mounted infantry, not cavalry. These were typical of the cavalry fielded by all of the protagonists in Britain and Ireland with the exception of the light lancers which only the Scots and Irish Confederates employed. There were some examples of units of cuirassiers, but these were short lived, mainly because the cost of the armour and horses strong enough to carry it made fielding them prohibitively expensive.³¹ Regiments routinely combined harquebusiers and lancers and a number permanently incorporated dragoons. Captain John Tours was promoted to major on 28 October 1645 to command the infantry (not dragoons) in Barclay's cavalry regiment, an unusual arrangement which ended when the Estates ordered the companies to Dundee as part of its garrison on 9 November.³² David Leslie's Horse and Lanark's Horse were both organised with integral companies of dragoons from early 1644 until the army was new modelled in early 1647, increasing their potential effectiveness by combining the characteristics of infantry and cavalry.³³ Coupar's regiment of dragoons

²⁶ Terry, *Papers Relating to the ASL&C*, inter alia, i p. lii, p. lvii p. lxxii, ii pp. 374-649. Furgol, *Regimental History*, pp. 108-187.

²⁷ *CSPI 1633-1647*, p. 428.

²⁸ Terry, *Papers Relating to the ASL&C*, i, p. 65, p. 78, p. 104, ii p. 379. Furgol, *Regimental History*, p. 178. RPS, 1645/11/61.

²⁹ RPS, M1650/11/25.

³⁰ Ward, *Animadversions*, p. 278, pp. 293-294. Firth, *Cromwell's Army*, Ch 5.

³¹ Cruso, *Instructions for the Cavalry*, pp. 28-31. Ward, *Animadversions*, p. 278, pp. 293-294. Firth, *Cromwell's Army*, Ch 5.

³² Stevenson *Scotland under the Covenanters*, p. 16, p. 32.

³³ Terry, *Papers Relating to the ASL&C*, i, p. 136, p. 154.

was broken up in December 1645 and reorganised into six companies, two of which went to each of the horse regiments of viscount Hugh Montgomery, Colonel Robert Montgomery and Colonel David Barclay, staying with them until the army new modelled in 1647.³⁴ These organisational changes reflect an ongoing European debate over whether dragoons should be organised as companies or regiments as it was commonplace to brigade dragoon companies with harquebusiers.³⁵ The Committee of both Kingdoms formed a sub-committee to address the issue on 31 December 1644 whose membership included the Scots Commissioners.³⁶ David Leslie was an advocate of the mixed organisation: in the new modelled army he was initially allocated only a troop of horse but the dragoon companies were reorganised explicitly so that he could retain a mixed force.³⁷

The proportion of a regiment which was armed with lances is unknown. At Marston Moor the troops of Balgonie's regiment were organised as two squadrons one of which was equipped with lances, which might be interpreted as a 50/50 split.³⁸ The ASL&C's accounts support such a proportion. Balgonie's regiment was issued with 244 lances in the five months before the battle, enough for roughly half of a full strength regiment of 480 men. Balcarres' regiment was provided with 120 new lances by 'John Mayne, bow-maker in St Andrews', in the aftermath of Kilsyth (1645). That regiment mustered 369 men at Newark in January 1646, making it likely that at least a third were armed with lances.³⁹ Weldon's regiment received 230 lances on 30 April 1644 which is again enough for roughly half of his regiment.⁴⁰ One contemporary report of Dunbar [1650] stated that only the 'frontiers [were] armed with lances', meaning the front rank, while another reported the cavalry 'being most Lanceers'. Although unhelpful in itself, this does demonstrate that a significant proportion of the cavalry continued to be armed with lances in 1650.⁴¹ Lancers were organised in separate troops, which is seen in Balgonie's regiment at Marston Moor [1644] as noted above; in Gordon's description of the advance of 'two troupes of horse, and one of lanciers' at Kilsyth [1645]; and in an action involving 'troops of Lanciers' the day before Dunbar.⁴² It should be noted, however, that from as early as 1640, some lancers were simply harquebusiers with a lance (see Table 5.2 below). The proportion of lancers would have been affected by routine attrition, making it variable in practice, but likely to have been 50% in theory. These changes reflect active debate about improving capability, not simply the adoption of the latest practice.

³⁴ RPS, 1645/11/53.

³⁵ Inter alia. Barratt, *Cavaliers*, pp. 59-60. Firth, *Regimental History*, i, p. 308. Lynn, *Grand Siècle*, pp. 493-494.

³⁶ CSPD 1644-1645, p. 205.

³⁷ RPS, 1646/11/270.

³⁸ William Stewart, *A Full relation of the late victory [etc]*, (London, July 11, 1644), p. 7.

³⁹ RPS, 1645/11/293. JHL, viii, p. 186.

⁴⁰ Terry, *Papers Relating to the ASL&C*, i, p. 133.

⁴¹ ThomaCarte s, *A Collection of Original Letters and Papers*, (London 1739), i, pp. 382-383. *A brief narrative of the great victorie [...] near Dunbar*, (London 1650).

⁴² William Stewart, *A Full relation of the late victory [etc]*, p. 7. Gordon, *Britane's Distemper*, p. 139.

Equipment

The surviving levy instructions concerning the equipping of cavalry are summarised in Table 5.2.

Cavalry Equipment in Theory		
Date	Harquebusier	Lancer
Dec 1638 ⁴³	Lance, carbine, pistols, good horse, horseman’s corslet with headpieces.	
June 1640 ⁴⁴	Pistols, Carbine.	Jack and lance.
Aug 1643 ⁴⁵	Pistols, broadswords and steel caps.	Jacks/secrets, lances, steel bonnets and swords.
Dec 1643 /Jan 1644 ⁴⁶	Committee of Estates: horsemen to have ‘pistollis, carabines, hagbuttis, or [...] launces jacks and steill bonnetis, or anie uther armes whatsoevir useful for horse’.	
Feb 1644 ⁴⁷	Swords and Pistols.	
Mar 1645 ⁴⁸	No cavalry equipment specified.	
Apr 1648 ⁴⁹	Sufficiently provided with arms.	
May 1648 ⁵⁰	Troopers well mounted and Armed.	
July 1648 ⁵¹	Pistols and Swords.	
Sep 1648 ⁵²	Well mounted and provided with sufficient swords and pistols or lances.	
Oct 1648 ⁵³	Swords and pistols or lances.	
July 1650 ⁵⁴	Pistols and lances, broad swords, and steel caps.	
Dec 1650 ⁵⁵	Pistols, holsters or side pistols or lances. All the back breasts and head pieces which can be had.	
Table 5.2		

This Table shows that the Covenanters had two basic types of cavalryman, the harquebusier and the lancer although from as early as 1640 and certainly from 1644 the two became more of a single generic type of cavalryman. The lack of detail in some of the instructions and imprecise expressions such as 'sufficiently provided' and 'well mounted and armed' indicates that it was left the shire committees of war to decide how well their men would, or could, be armed. Table 5.3 provides examples of decisions by shire committees about arming their men and descriptions of how men were armed. The Table shows that the basic equipment types were used throughout the period with the addition of buff coats in lieu of body armour. References to jack and spear are limited to the Bishops' Wars, although as with the 1643/44 reference in Table 5.2, men were likely to have been so armed in the 'reserve' shire cavalry where resources would have been scarce. Kirkcudbright and Renfrew, in June 1640, equipped their men as harquebusiers, with the addition of a lance, although neither mentioned body armour and only

⁴³ NRS, GD16/52/19.

⁴⁴ *Act Anent the out coming of Horses, 1640.*

⁴⁵ RPS, 1643/6/77.

⁴⁶ *Miscellany of the Maitland Club*, (Edinburgh 1840), ii, pp. 423-425.

⁴⁷ RPS, 1644/1/67.

⁴⁸ *At Edinburgh the 28 day of March 1645.*

⁴⁹ RPS, 1648/3/79.

⁵⁰ RPS, 1648/3/104.

⁵¹ *Act for a New Levie of Horse*, (Edinburgh, last July 1648), p. 2.

⁵² Fraser, *Annandale Family*, ii, pp. 34-35.

⁵³ NRS, GD220/3/189.

⁵⁴ RPS, A1650/5/116.

⁵⁵ RPS, A1650/11/16.

Kirkcudbright mentioned a helmet. Lancers equipped with jack and spear appear to have been superseded over time in the field armies by harquebusiers who were also armed with a lance.

Date	Cavalry Equipment in Practice
Mar 1639 ⁵⁶	Horsemen ('gallants') in Aberdeen wearing buff coats and carrying carbines and pistols.
May 1639 ⁵⁷	Eglinton mustered '[100] gentlemen and baronnes, with [200] yeamens with jack and speir'.
June 1640 ⁵⁸	Aberdeen: six men 'furneist with jack and lansis, or with carabines and pistollis'.
June 1640 ⁵⁹	Renfrew committee of war sent out an additional horseman 'furnishit with ane lanss, sword, pair of pistols or carbines'.
June 1640 ⁶⁰	Kirkcudbright decided that 'each horseman [was to] have for arms, at the least, a steel cap and sword, a pair of pistols, and a lance'.
July 1640 ⁶¹	Glasgow equipped ten horsemen with 'ten carabenis, [and] aught pair of pistollis'.
Aug 1640 ⁶²	Covenanter horse reported as completely lacking body armour, but all armed with 'pike staves, swords, and pistols, and a few petronels [long barrelled pistols]'.
Jan 1642 ⁶³	Privy Council ordered 'fyve hundreth horsemen peeces with snaphances, or, for want of suche, fyve hundreth carabynes' for the horse deploying to Ulster.
Feb 1644 - Apr 1646 ⁶⁴	Units in ASL&C issued 1000 sets of armour, 513 lances, 4006 pairs of pistols and 1540 swords.
Apr 1644 ⁶⁵	Buff coats, pistols, swords and carbines plundered from Aberdeen.
Oct 1645 ⁶⁶	Balcarres and Lanark's regiments were issued with 120 'head, back and breast pieces'. Brown's regiment received 100 'head, back and breast pieces' and 100 pairs of pistols.
Post Kilsyth ⁶⁷	Balcarres' regiment received 120 lances.
Feb 1646 ⁶⁸	Balcarres requested 200 pairs of pistols and 80 horses for his regiment.
May 1648 ⁶⁹	Levy included 'ane strong and able man with sword and half pike be appointed to attend each two baggage horse'.
July 1648 ⁷⁰	Colonel James Agnew's belongings included 'Ane Buff Coat [and] Ane pair of Dutch pistolis.'
Nov 1649 ⁷¹	Proposed arms purchase included 200 pairs of pistols.
Apr 1650 ⁷²	Lt Col Strachan was wearing a 'buffe coate' and no armour at the Battle of Carbisdale.
Sept 1650 ⁷³	600 lances made in Glasgow.
Dec 1650 ⁷⁴	Petition of Alex Hay for himself and others, bowers, Edinburgh, for free quarters in Dundee, where they are making lances for the public.
Table 5.3	

Body armour was not available in sufficient quantities to equip all cavalrymen and buff coats were worn from as early as 1639. Body armour was heavy, uncomfortable and required routine maintenance to

⁵⁶ Spalding, *Memorials of the Troubles*, i, p. 154.

⁵⁷ Fraser, *Memorials of the Montgomeries*, ii, p. 292.

⁵⁸ Spalding, *Memorials of the Troubles*, ii, p. 494.

⁵⁹ NRS, GD3/9/4/3.

⁶⁰ Nicholson, *Minute Book*, pp. 1-2.

⁶¹ Marwick, *Burgh of Glasgow i*, p. 415.

⁶² CSPD 1640, p. 616.

⁶³ RPCS 1638-1643, p. 177.

⁶⁴ Terry, *Papers Relating to the ASL&C*, i, p. 21, p. 35, pp. 39-139, p. 160, p. 162, p. 260, ii, p. 599. *JHC*, iv, p. 263, p. 376.

⁶⁵ Spalding, *Memorials of the Troubles ii*, p. 342.

⁶⁶ Stevenson, *Scotland under the Covenanters*, p. 16, p. 21.

⁶⁷ RPS, 1645/11/293.

⁶⁸ RPS, 1645/11/276.

⁶⁹ RPS, 1648/3/104.

⁷⁰ Sir Andrew Agnew, *The Agnews of Lochnaw*, (Edinburgh 1864), p. 301.

⁷¹ Wood, *Burgh of Edinburgh 1642 to 1655*, p. 219.

⁷² Balfour, *Historical works*, iii, p. 10.

⁷³ Marwick, *Burgh of Glasgow ii*, p. 193.

⁷⁴ NRS, PA7/7/108.

prevent rust. More importantly, as previously noted, unless it was expensive proofed armour it would not stop a musket or pistol ball and a buff coat could provide similar protection against slashing blades without the weight or discomfort.⁷⁵ Decisions were being made at the local level and even then, men were not necessarily being uniformly equipped.

Neither the ASL&C's train of artillery nor the armoury at Leith held any cavalry armour in 1644. This suggests that either all available armour had been issued and that there were no replacement sets or that there was little armour available in the first place. From the following year onwards, the accounts of both Leith and the ASL&C's train confirm that a proportion of the cavalry was equipped with body armour and helmets, but there is little indication of what proportion this was. The 'Whole Charge' of the ASL&C, that is all the arms and ammunition received from Scots or English magazines between 1 January 1644 and 1 January 1647, included only 1000 'stands of harnesse' which arrived from London in March/April 1645. An entry in the Journal of the House of Lords described this equipment as 'One Thousand Backs, Breasts, and Pots'.⁷⁶ The army's accounts show the issue of 999 (one set was listed under 'broken, lost, spent in service'), 879 of them in April/May 1645 with the dates for another 120 unknown, but likely to be in the same months.⁷⁷ This was the period when the ASL&C was coming under increasing pressure from the English Parliament to advance south, which it eventually did in June 1645. The reason for the delay was that it had received 'noe Supply of Armes, Ammunition, and other Necessaryes' from either England or Scotland.⁷⁸ It seems clear from this evidence that Scotland could not supply the needs of the ASL&C's cavalry.

Balcarres' and Lanark's regiments were, however, issued with 120 'head, back and breast pieces' on 28 October 1645, as shown in Table 5.3, which came from the Leith armoury. Most of Balcarres' regiment, numbering 369 all ranks, was billeted in Linlithgow on an unspecified date in November, meaning that at least 32% of his regiment had body armour and a helmet. Brown's regiment received 28 sets of armour from the ASL&C in April and May 1645 and a further 100 sets from Leith on 30 October 1645. At the muster of 17 January 1646 he had 532 troopers, so perhaps 19% of his regiment had armour.⁷⁹ There are no muster figures available for Lanark's regiment to attempt an estimate of the proportion that was armoured. Surviving records show that in the ASL&C, 10 of 16 regiments were issued English armour as were 2 of 25 troops. Of these, Hamilton's regiment mustered 363 on 1 March 1645, two months before it was issued with 100 sets of armour meaning that at least 27% of its men were

⁷⁵ Fissel, *Tradition and Invention in the Early Stuart Art Of War*, p. 139. Young, Holmes, *English Civil War*, pp. 41-42. Firth, *Cromwell's Army*, p. 118.

⁷⁶ *JHL*, vii, p. 642.

⁷⁷ NRS, PA15/3. Terry, *Papers Relating to the ASL&C*, i, p. 21, p. 35, p. 123, pp. 126-139.

⁷⁸ *JHL* vii, pp. 282-283.

⁷⁹ Stevenson, *Scotland under the Covenanter's*, p. 16, p. 21.

so equipped. For the remaining regiments there are no useful muster figures. Leven's Lifeguard was issued 90 sets of armour on 13 May 1645 and mustered 102 men on 17 Jan 1646. Although these events are six months apart, this is sufficient to state that all (or nearly all) of the troop possessed helmets and armour making it extremely well equipped.⁸⁰ In turn, however, this is evidence for a shortage of armour as the troop almost completely lacked armour before May 1645. How the armour was distributed in each regiment is unknown, but Clarendon wrote that Royalist officers in 1642 were happy if they could procure armour 'for their two or three first ranks'⁸¹. Similarly, the earl of Orrery (formerly a Royalist and then Parliamentarian commander in Ireland) wrote that his preference was for every man to have 'Back, Breast and Pott [but that] at least, [he] would have the Front and Flanks of every Troop in such Armor'⁸². Similarly, when the earl of Castlehaven provided armour for his troopers to counter the Scots lancers in Ireland, he could only provide 'so many defensive arms as might cover two ranks of [his] horse'⁸³. Given that Covenanter cavalry was only partly equipped with armour, it is probable that a similar solution was adopted.

As noted in Chapter 4, arms provided by Thomas Cunningham, 'in and before anno 1641' included 15,673 muskets but only 52 pairs of pistols.⁸⁴ This disparity may be partly explained by an initial assumption on the part of the Covenanters that domestic pistol manufacture could supply the cavalry's short term needs. Between 1635 and 1652, there is evidence for at least 110 dagmakers and apprentices across Scotland although only a proportion would have been active at any one time. They were distributed as follows: Edinburgh/Canongate 75, Glasgow 20, Dundee 6, St. Andrews 2, Stirling 2, Brechin 1, Doune Perthshire 1, Elgin 1, Irvine 1 and Langshaw in Galashiels 1.⁸⁵ It would become apparent, however, that this was too small scale. In 1640 Glasgow equipped its ten horsemen with 'ten carabenis [and] aught pair of pistollis' which would be strange unless there were insufficient pistols to equip the last two men.⁸⁶ There were only 497 pairs of pistols in the armoury at Leith in 1644 and all of them had been issued before an audit on 13 September. Brown received 100 pairs and Balcarres 200 pairs from Scotland in 1645 and 1646.⁸⁷ The English Parliament, by contrast, provided 1008 pairs in March/April 1644, at least another 2500 pairs in 1645 and 500 pairs in 1646.⁸⁸ Although there is some

⁸⁰ Terry, *Papers Relating to the ASL&C*, i, p. 21, p. 35, p. 123, pp. 126-139. Furgol, *Regimental History*, pp. 108-187.

⁸¹ Clarendon, *History of the Rebellion*, ii, p. 347.

⁸² Earl of Orrery, *A Treatise of the Art of War*, (New Exchange 1677), pp. 32-33.

⁸³ Castlehaven, *The Earl of Castlehaven's Memoirs*, (Dublin 1815), p. 74.

⁸⁴ Courthope, *Thomas Cunningham*, pp. 53-54.

⁸⁵ Lumsden, *History of the Hammermen of Glasgow*, (Paisley 1912), pp. 287-288. *RPCS 1638-1643*, p. 27. Grant, *Apprentices of the City of Edinburgh*, p. 12, p. 63, p. 122, p. 166. Scottish Record Society, *The Register of Marriages for the Parish of Edinburgh, 1595-1700*, (Edinburgh, 1906), p. 428, p. 453, p. 472. Francis Grant, *The Commissariat Record of Edinburgh Register of Testaments*, (Edinburgh 1898), ii, passim. NRS, *GD1/22/1*. John Anderson, *Calendar of the Laing charters*, (Edinburgh 1899), p. 567. *The Gazetteer of Scotland*, (Dundee 1803), p. 116. David Caldwell, *Guns in Scotland*, PhD Thesis, University of Edinburgh, 1981, pp. 661-727.

⁸⁶ Marwick, *Burgh of Glasgow*, i, p. 415.

⁸⁷ NRS, *PA15/3*. Courthope, *Thomas Cunningham*, p. 95. RPS, *1645/11/276*.

⁸⁸ *JHC* iv, p. 263, p. 376. Terry, *Papers Relating to the ASL&C*, i, p. 21, ii, p. 599.

evidence of the issue of 'leve and pistol' money for recruiting and presumably purchasing or repairing pistols, the Covenanters were clearly relying heavily on the English Parliament to equip their cavalry.⁸⁹

At least 1500 ASL&C cavalymen had to be re-equipped with pistols (assuming a two pistols per man) between February and April 1645 before advancing to Hereford and then returning to Scotland to deal with Montrose. Despite time in Scotland and raising fresh troops while there, another 1000 pairs of pistols had to be provided by the English Parliament in December, on top of the stop-gap issue of 500 pairs to create makeshift cavalry out of ASL&C infantry in September.⁹⁰ The equipment attrition rate is unremarkable in itself: the English Parliament resolved that 2000 pairs of pistols were sent to Fairfax on 26 June 1645, followed by another 4000 in December.⁹¹ The Covenanters could not re-equip the cavalry while they were in Scotland and this must have continued to be an issue until the end of the wars. Equipment losses at Preston, Dunbar and, to a lesser extent, Worcester, could only have exacerbated this. The cavalry deployed from 1648 onwards must have been equipped in a more ad hoc manner, increasingly so with the levels of equipment attrition described above. In 1649 the Estates had to resort to asking Edinburgh's council to arrange for the overseas purchase of 200 pairs of pistols and in 1651 Lieutenant General Leslie and Major General Montgomery were reduced to writing to Glasgow's Council asking how many pistols they had in the burgh: the answer was none.⁹² This would, in part, explain the declining effectiveness of Covenanter cavalry at the end of the period and would certainly have been a severely limiting factor for hastily raised troops in the Anglo-Scottish war.

The Covenanters were unusual in continuing to field lancers when most of Europe agreed with Cruso who dismissed the lance as an historical curiosity in the 1644 edition of his cavalry manual.⁹³ Yet the Scottish light lancers were not the heavy, fully armoured lancers, to which Cruso referred: such a horseman was indeed obsolete. Robert Rich, 2nd earl of Warwick, mentioned a 'Launce' in a letter in 1638 and Thomas, Lord Fairfax wrote in his memoir of having 'Scots Horse, and Lances for [his] Reserves' at Marston Moor. Apart from such rare exceptions, however, the sources variously refer to a 'Horse and man armed with [a] Lance', or 'horsemen [...] provided with [...] lances', but not to lancers per se. This indicates that they were just regular cavalymen who also had lances.⁹⁴ As seen in Tables 5.2 and 5.3 there was, initially, a clear distinction made between horsemen armed with firearms and a sword and one armed with jack and lance, but in 1640 the evidence shows that the former could also be armed

⁸⁹ Terry, *Papers Relating to the ASL&C*, ii, p. 374, p. 375, p. 379.

⁹⁰ Terry, *Papers Relating to the ASL&C*, i, pp. 125-136. *JHC*, iv, p. 263, p. 376.

⁹¹ *JHC*, iv, p. 187,

⁹² Wood, *Burgh of Edinburgh 1642-1655*, p. 219. Marwick, *Burgh of Glasgow*, ii, p. 202.

⁹³ Cruso, *Instructions for the Cavalry*, 1644, Ch 28.

⁹⁴ *HMC, 17th Report, Appendix Part 2*, (London 1897), p. 45. Fairfax, *Short memorials of Thomas Lord Fairfax*, London 1699, p. 84. *Act Anent the out coming of Horses*, 1640. NRS, GD220/3/189.

with a lance. Cruso in both his 1632 and 1644 editions said that lancers should also be armed with swords and pistols, giving the reason in the latter that after a charge, the lance ‘becometh unusefull’.⁹⁵ ‘Intelligence from Scotland’ sent to Edward, viscount Conway dated 15 August 1640 reported that the Covenanters had ‘some horse armed with pistols and barbed lances’. Five days later Sir John Clavering confirmed this to Conway reporting that the ‘horse have all pike staves, swords, and pistols.’⁹⁶ Allowing for different shire committees equipping their men in different ways and routine equipment attrition which would have meant that few cavalrymen were identically equipped, the Scots lancer had become a harquebusier equipped with a lance.

The third type of horsemen fielded by the Covenanters were dragoons who were mounted infantry not cavalry. As Turner said, however, ‘they [were] reckon’d as a part of the Cavalry and [were] subordinate to the [...] General of the Horse’.⁹⁷ There was a report that the Covenanters had ‘three most contemptible troops of dragoons’ at Kelso in 1639, but no regiments were raised until 1643. In this the Covenanters differed from the Royalists who raised a regiment of dragoons in each of the Bishops’ Wars.⁹⁸ The Covenanters raised at least eight regiments of dragoons: Fraser’s and Coupar’s in 1643/44, Urry’s and Milne’s in 1645, Braibner’s and Menzies’ in late 1650 and Kirkcudbright’s and Mouswall’s foot regiments were reconstituted as dragoons after Dunbar.⁹⁹ All Western European armies of this period were aware of the complimentary capabilities of cavalry and infantry in battle and of the vulnerability of each arm if deployed unsupported by the other. Dragoons provided infantry which had operational and tactical mobility which matched that of the cavalry, adding significantly to an army’s capability.

The tactic of deploying mixed forces of cavalry and dragoons was simply a development of the tactic of deploying musketeers with cavalry which had been one of Gustavus Adolphus’ innovations. Writing in 1677 the earl of Orrery, recommended permanently integrating dragoons into cavalry regiments, based on his own experience.¹⁰⁰ The dragoons’ muskets had greater range than the cavalry’s carbines or pistols and would have significantly increased the volume of fire delivered. Integrating the differing capabilities of shock action and firepower delivered vital advantages. At Marston Moor, Fraser’s dragoons cleared the ditch which lay between the two armies of Royalist musketeers, allowing Cromwell’s cavalry regiment to cross the obstacle quickly and without enemy interference.¹⁰¹ Later in

⁹⁵ Cruso, *Instructions for the Cavalry*, 1632, Ch 22, 1644 Ch 28.

⁹⁶ *CSPD 1640*, p. 589, pp. 616.

⁹⁷ Turner, *Pallas Armata*, p. 236.

⁹⁸ *CSPD 1638-1639*, p. 389, p. 544, p. 580. *CSPD 1639*, p. 10, p. 369. *CSPD 1639-1640*, pp. 317-318, p. 491, p. 549.

⁹⁹ *A List of the Several Regiments [...] of the Scottish Army*, 1644. Terry, *Papers Relating*, i, p. lxix. RPS, 1645/1/139. Stevenson, *Scotland under the Covenanters*, p. 21. Furgol *Regimental History*, pp. 330-346.

¹⁰⁰ Orrery, *Art of War*, pp. 33-34.

¹⁰¹ Stewart, *A Full relation of the late victory [etc]*, July 11, 1644, p. 9.

the evening when Parliamentary and Covenanter cavalry could not break into the ranks of Newcastle's Whitecoats, it was Fraser's and Manchester's dragoons which used their firepower to weaken the infantry enough for the cavalry to charge home.¹⁰² The Covenanters clearly demonstrated their understanding of the need to combine dragoon firepower with cavalry shock action through the formation of integrated regiments of harquebusiers, lancers and dragoons from 1643.

Size and Strength of Horses

Any consideration of cavalry must include the availability of horses to mount them: routine musters counted men not horses. There is very little evidence for the rate at which Covenanter horses were lost, but the English New Model Army's attrition rate from 'June 1645 to June 1646 was around 63% for cavalry horses and 78% for the dragoons'.¹⁰³ The Scots' attrition rate was high enough for the English Parliament's Commissioners with the ASL&C in July 1645 to be instructed 'to help the Scotts Army with Recruits of such Horses, upon Account, as shall be lost in the Service'.¹⁰⁴ An example is as shown in Table 5.3: Balcarres' regiment had 80 dismounted troopers in February 1646, which was 21% of the 369 men who mustered at Newark less than three weeks previously.¹⁰⁵ While not a representative figure for the army it is an indication of how seriously the cavalry's effectiveness could be eroded through loss of mounts and of the difficulty the Covenanters faced in replacing their losses.

Size and strength were necessary in cavalry mounts because, as William Fiennes, viscount Saye and Sele wrote in 1654, smaller horses would not have 'been able to stand a charge, or Indure the shock of the Enemies horse'.¹⁰⁶ Native Scottish breeds were the Highland, Shetland and Galloway Ponies which have been described as 'excellent for skirmishing and foraging, [but] too small for use in pitched battle'.¹⁰⁷ This should be caveated by the fact that even on smaller horses, cavalry could still be effective against poorly trained or equipped infantry. At various times in the sixteenth and seventeenth centuries there were deliberate attempts to improve Scottish horse breeds, intended to produce types such as war horses, race horses and cart horses. Despite this, by 1638 Scotland lacked larger animals for both cavalry mounts and draught animals. There had been some success as is demonstrated by the Royalists deploying cuirassiers at Megray hill in 1639, and '11 great horse' were seized from the earl of Nithsdale in mid-

¹⁰² Somerville, *Memorie of the Somervilles*, ii, pp. 347-348.

¹⁰³ Gavin Robinson, *Horse Supply and the Development of the New Model Army, 1642-1646*, War in History, April 2008, p. 122.

¹⁰⁴ JHC iv, p. 209.

¹⁰⁵ RPS, 1645/11/276. JHL, viii, p. 186.

¹⁰⁶ Fiennes, *Scots Designe*, pp. 79-80.

¹⁰⁷ James Ritchie, *The Influence of Man on Animal Life in Scotland*, (Cambridge 1920), pp. 82-83. Andrew Fraser, *The Native Horses of Scotland*, (Edinburgh 1987), pp. 3-4. Gordon, *Scots Affairs*, i, pp. 270-271. CSPD 1640, p. 457. Peter Edwards, *Dealing in Death: The Arms Trade and the British Civil Wars*, (Stroud 2000), p. 165.

1640, but smaller breeds predominated. Procuring appropriate horses for harquebusiers in sufficient numbers was, therefore, problematic in Scotland.

One of the earliest acts in planning for war in June or July 1638 had been to order the leadership in the shires to determine the 'number of horss worth a hunder pund and abowe', the value clearly being linked to quality.¹⁰⁸ In late 1638 Baillie recorded an incident where the 'horse which our cowpers [horse dealers] had bought at Maton fair' had been seized by the Mayor of Newcastle, although they were later returned.¹⁰⁹ England was clearly one source of good quality horses. In 1639, the earl of Morton noted that the Covenanters 'were not able in all Scotland to muster 2,000 good and serviceable horse, for that they breede none, but buyes all'.¹¹⁰ In 1640 Sir John Clavering's opinion was that the Covenanters' cavalry was mounted on 'middling nags and geldings'.¹¹¹ Viscount Saye and Sele added that good quality horses were scarce in Scotland until they occupied northern England when they got access to 'Sir John Fennicks breed and our best Northern Horse'.¹¹² Sir William Belasys, however, reported to Secretary Vane in April 1640 that 'Scotchmen buy many horses in [Yorkshire]', demonstrating that England was still a source of good quality horses.¹¹³

The Covenanter cavalry's mounts at Marston Moor were described as 'being weaker Horse then my Lord Manchesters, [and] designed rather to the Chace [...] then to the Charge', albeit not by the most sympathetic of writers.¹¹⁴ As noted above, in early 1646, when engaged in the Siege of Newark, Balcarres asked the Scottish Parliament for mounts for '80 troopers [...] who want horses'.¹¹⁵ Given that his regiment had just returned from Scotland, this suggests a shortage of suitable mounts in Scotland and the north of England. Of the Engager cavalry in 1648, Burnet said that they 'were the best mounted that ever Scotland set out', suggesting that, as viscount Saye and Sele had indicated, better breeding stock had been acquired.¹¹⁶ The number of cavalry at Dunbar in September 1650 has been variously estimated at 3000-7000 and at 4000 when the army invaded England in August 1651. If accurate, these figures do not compare unfavourably with the numbers in the ASL&C, although a simple comparison of numbers does not suffice. As will be discussed below, the proportion of the Covenanters' cavalry to infantry was generally lower than that of their allies and enemies.¹¹⁷

¹⁰⁸ Innes, *Black Book of Taymouth*, 1855, p. 392.

¹⁰⁹ Laing, *Baillie*, i, p. 111

¹¹⁰ HMC, *Manuscripts of his Grace the Duke of Rutland*, i, p. 511.

¹¹¹ CSPD 1640, p. 616.

¹¹² Fiennes, *Scots Designe*, 1654, pp.79-80.

¹¹³ CSPD 1640, p. 10.

¹¹⁴ Bowles Edward, *Manifest Truth*, (London 1646).

¹¹⁵ RPS, 1645/11/276.

¹¹⁶ Burnet, *Dukes of Hamilton and Castle-Herald*, p. 355.

¹¹⁷ Firth, *Dunbar*, p. 42. Turner, *Memoirs*, p. 94. *A List of the Several Regiments [etc]*, 1644. Lithgow, *Exact Relation*, p. 9.

Traquair and Dalzell's assessment that half of the Scots mounts in 1639 were the equal of the Royalists' and Saye and Sele's observation that the Covenanters exploited the superior breeding stock they found in England, demonstrates that good quality horses were available in Scotland, but not in sufficient numbers. The engagement at Newburn in 1640 was decided by artillery and cavalry with the Covenanter horsemen defeating the Royalist, albeit while enjoying superior numbers. David Leslie's cavalry was effective against Rupert's cavalry at Marston Moor although it was in support of Cromwell's better mounted troops. Neither Cromwell's nor Leslie's cavalry could break into Newcastle's Whitecoats without the assistance of the dragoons' firepower, demonstrating that steady infantry could hold off cavalry however they were mounted. On 19 February 1644 in the engagement at Corbridge the '15 troops under the command of [Alexander Leslie] the Lord Balgoney [...] charged the [25 troops of the] enemy [cavalry] and made them give way with losse'.¹¹⁸ The Covenanter horse charged home three times and although the skirmish ended indecisively, the evidence does not describe markedly weaker Scottish mounts.

The cohesion and discipline of the cavalry as well as the quality of their mounts is attested to by the rapid march north after Kilsyth which led to the Battle of Philiphaugh and subsequent operations against MacColla in Argyll, culminating in his defeat at Rhunahaorine (1647).¹¹⁹ From the composition of David Leslie's force, which included dragoons and hastily mounted musketeers, it is clear that the less well mounted men were able to maintain the necessary pace and to reach Scotland still fresh enough to fight. At Dunbar, the Scots 'charged strongly, beeing most Lanceers, and coming down the Hill, [the English] Hors gave waie a little'. Notwithstanding the advantage of charging downhill, inferior numbers on markedly inferior mounts would not have been able to achieve this.¹²⁰ The cavalry engagements on 30 and 31 July 1650 near Leith and Musselburgh were indecisive but are both examples of the aggressive use of cavalry by the Covenanters. This would not have happened once let alone on successive days if the cavalry mounts were so outclassed by their opponents'.¹²¹ A proportion of the Scottish cavalry mounts were of lower quality, and this was a limiting factor in that not all of their mounts were suited to the shock action of a charge. Having a proportion of smaller mounts was not, however, a significant disadvantage when carrying out other cavalry tasks as will be discussed further below. Any weakness of Covenanter cavalry capability was not determined by inferior mounts.

¹¹⁸ Terry, *Alexander Leslie*, p. 193.

¹¹⁹ Stevenson, *Alasdair MacColla and the Highland Problem*, pp. 232-236.

¹²⁰ *A brief narrative of the great victorie [...] near Dunbar*, p. 3. Firth, *Dunbar*, p. 42.

¹²¹ *A Large Relation of the Fight at Leith Neere Edenburgh*, (London 1650). Wilbur Cortez Abbott, *The Writings and Speeches of Oliver Cromwell*, (Cambridge Massachusetts 1939), ii, p. 300

Numbers Of Cavalry

Table 5.4 shows the percentage of cavalry in a number of armies between 1631 and 1650.

Examples of the Proportion of Cavalry in Contemporary Armies				
Date	Army/Commander	Infantry	Cavalry	% Cavalry
September 1631 ¹²²	Breitenfeld, Swedish	26,842	13,289	33%
	Breitenfeld, Imperial	21,000	11,000	31%
November 1632 ¹²³	Lutzen, Swedish	12,828	5,910	31%
	Lutzen, Imperial	19,175	7,700	40%
August 1640 ¹²⁴	Covenanter	22-24,000	2,500	10-11%
September 1640 ¹²⁵	Royalist	16,000	2,000	12%
November 1643 ¹²⁶	ASL&C, Treaty	18,000	3,000	14%
July 1644 ¹²⁷	Marston Moor, Rupert	11,000	6,500	37%
	Marston Moor, Covenanter	11,500-12,000	2,000	16-17%
	Marston Moor, Fairfax	3,000-3,500	2,000	57- 67%
	Marston Moor, Manchester	5,000	3,000	37%
April 1645 ¹²⁸	Parliament, New Model Army	14,400	7,600	34%
January 1646 ¹²⁹	Covenanter, Newark Muster	Offrs + 2836	Offrs + 4136	59%
January 1647 ¹³⁰	Covenanter, New Model Army	6000	1400	19%
June 1650 ¹³¹	Covenanter, Levy Act	13,100	5,040	28%
July 1650 ¹³²	Cromwell, mobilisation	10,249	5,415	35%
Note: % rounded to nearest full number.				
Table 5.4				

There was no fixed ratio of cavalry to infantry: army strengths and compositions were altered regularly to suit changing circumstances, but rough proportions have been identified. Ward, in his 1639 *Animadversions of Warre* reported that the Prince of Orange's preferred option was for 25-30% of a force to be cavalry.¹³³ Hans Delbruck wrote that 'in the armies of the latter part of the Thirty Years' War, the cavalry formed between a third and a half of the total force'.¹³⁴ Peter Wilson similarly noted that in Europe 'whereas cavalry formed between a quarter and a third of field armies before 1635, over half were generally mounted thereafter'.¹³⁵ The key conclusion to be drawn from the table is that the Covenanters were generally weaker in cavalry than their contemporaries. This was not as a result of attrition while on

¹²² Lars Ericson Wolke, *Gustavus Adolphus*, (Barnsley 2022), p. 43, pp. 189-191.

¹²³ Wilson, *Lutzen*, p. 217, p. 220.

¹²⁴ *Great Account*, 1641.

¹²⁵ *CSPD 1640-1641*, p. 47.

¹²⁶ RPS, *1643/6/84, 1643/6/86*. Rushworth, *Collections, 1642-43*, p486.

¹²⁷ Firth, *Marston Moor*, p. 23, p. 25, p. 28, p. 30.

¹²⁸ Gentles, *New Model Army*, p. 10.

¹²⁹ *JHL*, viii, p. 186.

¹³⁰ RPS, *1646/11/182*.

¹³¹ RPS *A1650/5/109*.

¹³² *Severall proceedings in Parliament From Thursday the 25 July to Thursday the 1 day of August 1650*, (London 1650).

¹³³ Ward, *Animadversions*, p. 293.

¹³⁴ Hans Delbruck, *The Dawn of Modern Warfare*, (Westport Connecticut 1990), p. 189.

¹³⁵ Peter Wilson, *The Thirty Years War, Europe's Tragedy*, (Cambridge Massachusetts 2009), p. 826.

campaign, although this was clearly as much an issue for the Covenanters as it was for other armies. The 1643 treaty with the English Parliament is an example of deliberate planning, not of rapidly concentrating available forces on a battlefield, yet the planned forces included only 14% cavalry. This must be caveated by the fact that the English Parliament capped the figure that they were prepared to pay for, but that does not change the lessening of capability involved.¹³⁶ The planned numbers were increased in the levies of November and December, but as there was also an increase in the number of infantry the percentage of cavalry actually fell to 12%. In the levies of warfighting armies, rather than internal security forces or levies which were not completed, between 1643 and 1648 the percentage of cavalry was consistently between 9% and 12%.

In 1649/50 there was a significant change in thinking which was to 'put out the double of the number of Horse, and the half of the number of Foot that were appointed as designed in the year 1643'.¹³⁷ This took the planned numbers to 5040, or 28% of the army, although the implementation is questionable as will be discussed below. The percentages before 1649 stand in stark contrast to the planning for the English Parliament's New Model Army which set the cavalry percentage at 34% and the army that was mobilised under Cromwell's command in July 1650 where it was 35%. In an unplanned action, at Marston Moor (discounting Newcastle's men as he had sent his cavalry away before the Siege of York began) the percentage of cavalry in the Covenanter army was significantly lower than those of the other armies present.¹³⁸ The pivotal battles of Lutzen and Breitenfeld serve as examples of European practice where, again, the percentages of cavalry are far higher. As it was not lack of manpower (evasion and desertion notwithstanding) which kept the percentages low, it must have been a lack of money, equipment and horses.

There is evidence for as many as 4000 cavalry in 1639 as Traquair and Dalzell reported to the king in May 1639 that the Covenanters had '2000 as good Hors as we have any, & 2000 others that are not soe good but yet very useful'.¹³⁹ This was not a concentrated force, however, and as described above there were numerous tasks to which cavalry was assigned. Concentrated, as too few of them eventually were at Duns Law, they would have easily matched the king's 3260 horsemen as reported by Rushworth.¹⁴⁰ Although comprehensive totals are not available for 1639, the lack of cavalry was keenly felt by the Lord General. A letter from the army 'to the whole Shyres' dated 24 May expressed concern that the lack of cavalry exposed the country to the king's horsemen who would 'assuredly ravage all the country, and ryde into the heart of the kingdom'. On the 31 May a letter was 'sent in haste' to Edinburgh

¹³⁶ *JHL*, viii, pp. 89-90.

¹³⁷ *RPS*, 1649/1/186, A1650/5/109.

¹³⁸ Terry, *Alexander Leslie*, pp. 215-216.

¹³⁹ Frances Verney, *Memoirs of the Verney Family During the Civil War*, (London 1892), i, p. 308.

¹⁴⁰ *Manuscripts of the Earl of Eglinton*, pp. 35-36. Laing, *Baillie*, i, pp. 195-196, p. 211. *CSPD 1639*, pp. 267-268. Rushworth, *Historical Collections*, iii, pp. 926-927.

to be forwarded to the shires, telling them that the army had ‘neither seene your horsemen, nor of any other shyre’. The same day Leslie wrote to Lothian telling him that he was hamstrung by his lack of cavalry in the main army. The next day Fife’s committee of war was singled out in a letter condemning their ‘negligence in sending out of horsemen’. Wariston noted in his diary on 3 June that Leven was extremely frustrated by his lack ‘of victuals, money and horses especially’.¹⁴¹ On the other side of the hill, Sir Edmund Verney wrote of his Covenanter enemies on 11 June that they ‘have more foote but are weake in horse’ and would therefore avoid battle in the open field.¹⁴² From these various letters it is clear that it was lack of money, equipment and horses, combined with dispersion of resources and an inability to compel the shires to send their contingents to the army that explains the weakness in Covenanter cavalry in 1639. This vulnerability was not exposed only because there were no major actions fought in the war.

As shown in Table 5.4, Covenanter cavalry in 1640 only formed some 10-11% of the main field army under Leslie. In May, June and July Secretary Windebank received intelligence reports making it clear that any Covenanter cavalry raised were few in numbers, poorly mounted and poorly armed.¹⁴³ By July it had become clear to the Committee of Estates that there was a serious shortfall of horses for all purposes in the army, including baggage and draught animals in the artillery train. On 2 September Leslie wrote to the Estates requesting ‘als maney horsse and footte for a recruit to us’ as there had been ‘so grate neglecte’ in meeting the shire levy quotas.¹⁴⁴ To compound his problem the cavalry from Linlithgow had simply gone home after the action at Newburn.¹⁴⁵ Again this vulnerability was not exposed because there were no major actions fought before the Cessation of Arms was agreed on 26 October 1640.¹⁴⁶

In the ASL&C, the cavalry contingent was relatively small but at least appears to have been adequately equipped when it entered England. Between January and March 1644, some 240 troopers or dragoons were issued with pistols, lances or muskets, compared to over 3,100 infantrymen being issued muskets or pikes.¹⁴⁷ Table 5.4 shows that in 1644 the ASL&C had roughly comparable cavalry numbers to the armies of Fairfax and Manchester at Marston Moor but were significantly smaller as a percentage of the army. Following the Battle of Naseby on 14 June 1645, where the king ‘lost most of his infantry’, the Royalists ‘began to encrease the Number of their Cavalry, and turne themselves into a flying Army’.

¹⁴¹ Laggan, *Lord Wariston 1639*, pp. 35-62. Laing David, *Correspondence of Sir Robert Kerr First Earl of Ancrum and his son William Third Earl of Lothian*, (Edinburgh 1875), i, pp. 101-102.

¹⁴² John Bruce, *Letters and Papers of the Verney Family*, (London 1853), p. 252.

¹⁴³ *CSPD 1640*, pp. 215-216, p. 275, p. 446, p. 529.

¹⁴⁴ NRS, *GD112/39/82/4*.

¹⁴⁵ NRS, *GD75/590*.

¹⁴⁶ Rushworth, *Historical Collections*, iii, pp. 1306-1307.

¹⁴⁷ Terry, *Papers Relating to the ASL&C*, i, pp. 39-139.

In response the Covenanters determined to increase the size of their own cavalry arm and submitted a request, dated 4 July 1645, to the English Parliament for the money, pistols and saddles necessary to raise another 1000 cavalry.¹⁴⁸ This may have been overtaken by events as most of the Covenanter cavalry departed for Scotland in late August in the wake of the Covenanters' emphatic defeat at Kilsyth.

When he was summoned north, David Leslie was already detached from the main army with 'Eight Regiments of Horse, One Regiment of Dragoons, and Five Hundred Commanded Musketeers'.¹⁴⁹ On 3 September, Philip, 4th Baron Wharton and a member of the Committee for Both Kingdoms, reported Leslie crossing the Tyne with '5000 horse and Dragoons at the least', and on 16 September that he had held a muster at Harelaw which consisted of 'eight Regiments of Horse, one of Dragoons, some mounted Musqueteers and 800 commanded Men from Newcastle computed in all to be between 5 and 6000'.¹⁵⁰ Whether men were levied in England or Scotland, Leslie had clearly received reinforcements and in due course returned to the ASL&C with them.¹⁵¹ At the Newark muster of January 1646 the cavalry numbered over 4000 men and formed some 59% of the force. Most of Kirkcudbright's, Dalhousie's and Fraser's cavalry regiments were near York when the muster was held. In October 1645 Fraser's regiment mustered 480 men and Kirkcudbright's 350 while Dalhousie's mustered 373 in December making the likely overall strength of the ASL&C cavalry over 5,000 men.¹⁵² While Leslie was in Scotland, the ASL&C was so weak in cavalry that it had resorted to arming infantry with pistols and 'mounting [them] upon their baggage horses' which marked the nadir of its cavalry's operational capability.¹⁵³ 1645/46 was the first time that the Covenanters had such a strong cavalry arm and it was the result of responding intelligently to the changes in operational conditions following the Battle of Naseby.

The 1648 Act of Parliament for the Engager levy somewhat gloomily stated that 'the present service will necessarily require a greater number of horse and that the shires of this kingdom will hardly be able to equip the same, therefore the said estates have ordained that each regiment of horse shall consist of 180 troopers'. The total to be raised was 2,540 which was 9% of the total levy quotas, back at its traditional level after the high of 1646.¹⁵⁴ General Lambert reported on 17 July that the Scots had crossed the border with 2000 cavalry and 7000 infantry making the former 22%, but the percentage is relatively high only because of the paucity of infantry.¹⁵⁵ The army which was defeated at Preston had

¹⁴⁸ Gentles, *New Model Army*, p. 39. JHL, viii, pp. 89-90. *Constitutional history of England*, xiv, p. 8.

¹⁴⁹ JHL, vii, p. 538.

¹⁵⁰ *Constitutional history of England*, XIV p. 48, pp. 51-52.

¹⁵¹ Spalding, *Memorials of the Troubles*, ii, p. 383.

¹⁵² JHL, viii, p. 118. Louise Taylor, *Aberdeen Council Letters*, (London 1950), ii, p. 91. Furgol, *Regimental History*, pp. 129-130, p. 151.

Terry, *Papers Relating to the ASL&C*, i, p. 1.

¹⁵³ CPD 1645-1647, p. 101. JHC iv, p. 263.

¹⁵⁴ RPS, 1648/3/104.

¹⁵⁵ *Concerning the Advance of the Scots Army*, 1648.

been reinforced, but its scattered forces on the day meant an unchanged percentage of cavalry on the battlefield.¹⁵⁶

As part of the preparations to oppose Cromwell's invasion in the Anglo-Scots War, the levy of 25 June 1650 called out 5,040 horsemen who made up 28% of the planned army. This was, however, confused in the Act by giving all the shires the option of putting out three footmen in lieu of one horseman. The difficulties faced in raising levies during the previous decade were unchanged, giving no reason to believe that 5,040 men were raised: Dundee for example provided money instead of men for 50% of their quotas of infantry and cavalry.¹⁵⁷ To this must be added the purging of up to 5000 men from the army in August or more than a quarter of the whole levy, although what proportion of this was cavalry is unknown.¹⁵⁸

Estimates of the number of Covenanter cavalry at Dunbar range from 3,000 to 7,000, but the upper figure is hardly credible, it being more cavalry than the Covenanters had ever previously fielded in a single field army.¹⁵⁹ On 17 September, two weeks after the Covenanter defeat, Cromwell's Scoutmaster, William Rowe, wrote to him assessing that 'four thousand horse and two thousand foote of the old army, were rallied' at Stirling under David Leslie'.¹⁶⁰ The last levy Act for which details survive, dated December 1650, contains numbers of regiments to be raised not numbers of men, but by extrapolating from the establishments detailed in the June 1650 Act an estimate may be made.¹⁶¹ The Act did not include shires occupied by Cromwell's forces yet still called out some 3,700 cavalry and 35,000 infantry. Turner, however, estimated that when the army began its march into England, on 31 July 1651, 'the foot [...] were [only] upwards of nine thousand', and the 'horse and dragoons might be about foure thousand'. After the battle at Worcester on 3 September, Sir Rowland Berkeley wrote that 'the King of Scots fled northwards with about 4,000 horse and Highlanders'.¹⁶² Given that much of the cavalry contributed little to the battle, Turner's 4000 horse and dragoons seems a reasonable estimate. The cavalry (including dragoons) therefore made up some 30% of the army, but as with other examples, this was because of the weakness of the infantry.

¹⁵⁶ Bull, Seed, *Bloody Preston*, pp. 104-106.

¹⁵⁷ Earl of Crawford, *Bibliography of Royal Proclamations*, (Oxford 1910), ii, p. 343. Wood, *Burgh of Edinburgh 1642 to 1655*, p. 259. RPS, *A1650/5/127*. Maxwell, *Old Dundee*, pp. 533-534.

¹⁵⁸ RPS, *1649/1/186*, *A1650/5/109*. CSPD 1650, p. 309, pp. 324-325. Balfour, *Historical works*, iv, p. 89. Walker, *Historical Discourses*, p. 165.

¹⁵⁹ Reid, *Crown, Covenant and Cromwell*, p. 161. Reese, *Cromwell's Masterstroke*, p. 221. Walker, *Discourses*, p. 181. Firth, *Dunbar*, p. 24.

¹⁶⁰ John Nickolls, *Original Letters [...] Addressed to Oliver Cromwell*, (London 1743), p. 21.

¹⁶¹ *Act for a Leavie of Horse and Foot*, (Edinburgh, 25 June 1650).

¹⁶² Turner, *Memoirs*, p. 94. HMC, *Tenth Report, Appendix, Part VI*, (London 1887), p. 175.

The divisions in the country meant that not only was the Engager army mobilised with difficulty, but it was weakened by having to leave forces behind to secure the regime. In any event, the Engagers' conduct of the battle at Preston was so inept that most of their cavalry was not engaged until the situation was hopeless. At both Dunbar and Worcester cavalry numbers were quite high compared to previous armies, but the Scots were outclassed and outfought at the army level, making the composition of the army a lesser factor in deciding the outcomes. The willingness to try to match the percentage of cavalry in other armies came late in the day but produced a powerful cavalry force in 1645/46. After a fall in numbers during the Engagement, the ambition to raise more cavalry was evident but the cavalry's fortunes were as much in decline from then on as was Covenanter military capability as a whole.

Social Status

The importance of the horse as a status symbol in the military domain had declined since the battlefield dominance of the medieval knight, but horse ownership and equine skills remained important in early modern society.¹⁶³ This enduring status, the greater cost of equipping a cavalryman compared to an infantryman and the significant difference in pay between the two arms, inevitably meant that only those of a certain level of income (or those sponsored by them) could aspire to serve in the cavalry.¹⁶⁴ There is simply not enough evidence to determine the typical composition of Covenanter cavalry units in terms of social class, as will be shown below. Noblemen, gentry and landholders indubitably served as officers in the cavalry across the whole decade, but the status of those who served in the ranks is unclear. Those upper strata of society, however, also provided men to serve in parliament, shire committees, the infantry, artillery and in the merchant fleet amongst other tasks. Allowing for those who were reluctant or refused to serve, or indeed served the king, the remaining men of fencible age could only have provided a proportion of the cavalry's manpower.

The evidence for the active participation of the nobility, gentry and landholders is greatest in 1639. In March, the cavalry in Montrose's first expedition to the northeast consisted 'chiefly of volunteer gentlemen of the shires be north the Firth of Forthe', which included 'all the gentlemen west of Perth and in Angus' who were commanded by Campbell of Lawers (Younger).¹⁶⁵ The cavalry raised by Eglinton in 1639 was described as '100 gentlemen, with 200 yeomen', which was the same as the terminology used in a letter from the army to the 'whole Shyres' dated 24 May 1639 calling out all of the available horse.

¹⁶³ Miriam Bibby, *A Cultural History of the Galloway Nag*, MPhil Thesis, University of Glasgow, 2022, p. 129. Kevin Ornellas, *The Horse in Early Modern English Culture*, (Lanham 2014), p. 125. Graham, Enenkel, Edwards, *The Horse as Cultural Icon*, (Leiden 2012), p. 11, p. 351, p. 365.

¹⁶⁴ In the 1645 pay scales, cavalry officers earned 50% more than their infantry counterparts and cavalry troopers earned 350% more than infantry soldiers: RPS, 1645/1/132.

¹⁶⁵ Gordon, *Scots Affairs*, ii, p. 205. NRS, GD112/39/68/23.

Other gentlemen of the shires worked from Edinburgh carrying such urgent messages to the shire committees.¹⁶⁶ In 1640, calling out the cavalry levy and calling out the gentlemen of the shires were entirely separate activities, as discussed in Chapter 2. The Committee of Estates urged ‘all brave Cavaliers [to come out and] gaine Honour, and Eternall reputation’, followed by a threat of censure for any who did not do so.¹⁶⁷ Not only did significant numbers of gentlemen not turn out in the levy, but levels of consent or compliance were lower than in 1639. This was clearly seen in the case of the abandoned mobilisation of the regiment of gentlemen volunteers which Argyll was tasked with raising in 1640. Consent was still in evidence, however: Leslie’s Lifeguard in 1640 consisted of men from the College of Justice who were ‘frie troupers [who] did furnish themselves out’. The law had become an increasingly favoured career choice for younger sons of the gentry, who in this instance not only volunteered, but at Newburn formed the forlorn hope which led the way across the river.¹⁶⁸

The mobilisation of the ASL&C in the latter half of 1643 made no separate provision for recruiting heritors. In early January 1644, however, by which time the shortfall in levied cavalry (shown in Table 2.1) must have been apparent, an appeal was made for gentlemen to volunteer to serve in existing troops or to raise troops of their own. Again, this was in addition to, not part of, the cavalry levy which was also the case with a troop of volunteers raised to attend Argyle as a lifeguard. The following year, an Act of Parliament of 9 July 1645 made clear that the ‘weakened regiments and country people raised in the shires’, which had been defeated by Montrose and MacColla, had had to fight ‘without the assistance or countenance of [their shire] nobility [and] gentry’ and called upon them ‘upon their allegiance to rise immediately in arms’ to make amends. Less than a month later, on 2 August, another Act imposed penalties on the ‘noblemen, gentlemen and heritors’ who had failed to present themselves at the rendezvous on 19 and 24 July 1645.¹⁶⁹ Evidence is sparse from then on, but gentlemen volunteers joined the army in 1650 (despite the king excusing heritors from compulsory service) although some found their horses commandeered in error by other cavalry officers and they went home again.¹⁷⁰ After Dunbar, the king wrote to individuals such as Ewen Cameron of Lochiel trying to pressure them into service by saying that otherwise they would have to live with ‘the shame that yow have not [...] come upon the call’, but with what success is unknown.¹⁷¹ In June 1651, gentlemen volunteers from Perthshire agreed to march to the army at Stirling, although they insisted on choosing and following their own

¹⁶⁶ NRS, GD112/39/70/19. *Manuscripts of the Earl of Eglinton*, pp. 35-36. Laggan, *Lord Wariston 1639*, pp. 35-36, p. 44.

¹⁶⁷ *Act Anent the out coming of Horses*, 1640.

¹⁶⁸ NRS, E100/1. Jenny Wormald, *Bloodfeud, Kindred and Government in Early Modern Scotland*, Past & Present, May 1980, p. 70. Rushworth, *Historical Collections*, iii, p. 1237.

¹⁶⁹ RPS, 1645/7/8/7, 1645/7/24/20.

¹⁷⁰ NRS, GD40/2/16/52. Fleming, *Wariston 1650-1654*, ii, p. 8.

¹⁷¹ Bindon Blood, James MacKnight, *Memoirs of Sir Ewen Cameron of Lochell*, (Edinburgh 1842), pp. 92-93.

officers rather than the king's appointees.¹⁷² There were certainly heritors in the cavalry but not in overwhelming numbers: cavalry troopers were not of a single, easily defined social status.

There are, however, glimpses of the men who served in the cavalry's ranks. When the shire committee of war met in Glasgow's tolbooth in May 1640, an order to provide 'tua horsemen mor' described them as 'horse and man furnisheit with ane lanns, sword, pair of pistols'. The simple reference to a 'man' would be unlikely for a heritor.¹⁷³ The next month Dunfermline 'appointit George Durie horseman for the toune', who was a reinstated burghess having been previously stripped of that status. In the eight weeks between crossing the border and the signing of the Cessation of Arms he contrived to return to Dunfermline, presumably on leave. He was also reluctant to return his borrowed weapons to their rightful owners on his return and they had to ask the burgh council to compel him to do so. Durie was indeed, as a burghess, of higher social status, but he seems unlikely to have been one of the army's 'gutful men'.¹⁷⁴ Dundee, in May 1648, forbade the burgh's inhabitants from signing up with 'the Colonelles of the Cavallarie [who] were daylie intysing and taking away many of [the burgh's] inhabitantis'.¹⁷⁵ Those colonels would have been selecting men based on suitability not social status and the men were likely to be making a conscious decision to serve in the cavalry rather than the burgh's infantry contingent. Such had certainly been the explicit choice made by John Spreul, the Town Clerk of Glasgow, in 1645. Believing that the Magistrates were going to force him to join the town's infantry levy, he chose instead 'to go out for [his] father as one of the heritors of Renfrewshire and so provided [himself] with horse and arms' and joined Glencairn's Foot as a gentlemen volunteer.¹⁷⁶

In Kirkcaldy in December 1648 a group of burgesses and at least three ships' captains contracted with James Law (another burghess) to provide and outfit a horseman for the Engager army. The status of the horseman is unclear, but the burgesses and captains were not offering to go out in person.¹⁷⁷ In the same year, George Hume, of Kimmerghame was offered 'ane sufficient prettie man [who] will vndertak for ane trowper vpon reasonable conditions'. The word 'prettie', meaning experienced, suggests a veteran being brokered to fill a levy requirement.¹⁷⁸ When Glasgow sought to mobilise men in July 1650, the council made it clear that anyone could volunteer to serve as a horseman, and those who subsequently volunteered included 'honest men, friemen and vthers': 'friemen' were burgesses, but 'honest men' and

¹⁷² NRS, GD40/2/19/1/30.

¹⁷³ NRS, GD3/9/4/3.

¹⁷⁴ Shearer, *Burgh Records of Dunfermline*, p. 235, p. 240, p. 259.

¹⁷⁵ *Royal Burgh of Dundee*, p. 262.

¹⁷⁶ James Maidment, *Historical Fragments Relative to Scottish Affairs*, (Edinburgh 1833), p. 6.

¹⁷⁷ MacBean, *Kirkcaldy Burgh Records*, p. 167.

¹⁷⁸ HMC, *Manuscripts of the Duke of Roxburghe*, (London 1894), p. 109. DOST, Pretie: 'having the proper or desirable qualities or skills [...] most frequently with reference to [...] martial qualities'.

‘vthers’ were neither burgesses nor gentry.¹⁷⁹ The historiography includes an assumption that the majority of the cavalry consisted either of volunteers or of landholders, but while this may have been true of individual troops or regiments, the evidence does not support applying the assumption across the board.¹⁸⁰ In the crudest terms, the social status of the average cavalryman was higher than that of his dragoon or infantry equivalent. This is likely to have meant higher levels of consent and compliance, but this in turn masks the lack of consent and compliance amongst the heritors.

Effectiveness

One of the most important characteristics of cavalry was its mobility, both at the tactical and the operational levels. To be effective, it had to be able to exploit this to carry out a range of tasks including patrolling, reconnaissance, raiding, and the delivery of shock action in battle. The less glamorous and more routine activities filled the majority of the cavalry’s time and they were no less important than a dramatic cavalry charge. Their purpose was, inter alia, to protect lines of communication, to disrupt enemy activity such as foraging and to find and track the enemy to bring him to battle. Nevertheless, it is the detail of battles that appears regularly in the records, not details about patrol activity. The First Bishops’ War provides a partial exception (in terms of evidence) because patrolling and reconnaissance were the *raison d’être* of the troops of horse raised to watch the borders. Leven confirmed this when he wrote to Lothian on 31 May recommending that he ‘keep diligent watches, that they may see your horsemen upon their guard’.¹⁸¹ In this battle for information the cavalry (combined with reports from other sources) was highly effective, prompting the earl of Holland to write that ‘they know all our purposes soon enough to prevent them [and] we have great disadvantage by it, since intelligence is the soul of armies’.¹⁸² Raiding was generally such a small scale activity that even where it can be found in the record, there is little that can be inferred about the effectiveness of the cavalry as a whole. An example of this is the successful raid on 7 September 1640 as reported by Secretary Vane who wrote of plundering ‘at Sunderland [...] with four troops of horse, Lord Yester commanding them’.¹⁸³ A similar raid, conducted by a troop led by Sir Alexander Douglas, was surprised at Stapleford in Yorkshire on 20 September and annihilated. The Royalists, of equal numbers and led by a Lieutenant Smith who was a veteran of Dutch service, killed 21 men and captured 37, while a further 10 drowned attempting to escape across the river Tees.¹⁸⁴ In view of the narrow scope of the information available on routine tactical

¹⁷⁹ Marwick, *Burgh of Glasgow*, ii, p. 193.

¹⁸⁰ Inter alia. Macinnes, *British Confederate*, footnote 42 to p. 148. Stewart, *Rethinking the Scottish Revolution*, p. 181. Ian Gentles, *Why Men Fought in the British Civil Wars*, *The History Teacher*, Aug 1993, p. 407. Alfred Burne, Peter Young, *The Great Civil War*, (Gloucestershire 1959), p. 10.

¹⁸¹ Laing, *Correspondence of Ancram and Lothian*, i, pp. 101-102.

¹⁸² *CSPD 1639*, p. 280.

¹⁸³ *CSPD 1640-1641*, p. 23.

¹⁸⁴ *Effigies of Trve Fortitvde [...] in the famous actions of Major Generall Smith*, (Oxford 1644), pp. 6-8. *CSPD 1640-1641*, pp. 79-80.

activity, the effectiveness of Covenanter cavalry across the period must be determined by its performance in battle.

The high points for the Covenanter cavalry were the actions at Newburn (1640), Marston Moor (1644), Philiphaugh (1645) and Carbisdale (1650). Newburn was a relatively small scale affair in which the successful integration of the artillery's firepower and the cavalry's shock action won the day. At Marston Moor, the regiments under David Leslie's command combined efficiently with Cromwell's to defeat Prince Rupert's right wing through shock action, freeing them to then save the rest of the allied army from disaster. From preparing the way for Cromwell's men to cross the ditch at the beginning of the battle, to weakening Newcastle's infantry at the end, the Covenanter dragoons were fully integrated into the cavalry actions. This must be balanced, however, by the fact that the Covenanter cavalry on the opposite flank was defeated and driven from the field.¹⁸⁵ At the operational level, Philiphaugh was a demonstration of effective military capability of the highest order. The forced march was a singular achievement, which balanced the need for urgency with the need to reach Scotland fit to fight rather than exhausted. The final advance to Philiphaugh was conducted with such skill that Montrose's force was utterly unaware of their presence until attacked. Leslie not only had dragoons with him but had also drawn on the garrison of Newcastle for additional musketeers who must have been mounted on any available horses, given that the rest of the force was mounted. As at Marston Moor the integration of infantry firepower into the cavalry action demonstrated an experienced and effective cavalry capability. Carbisdale was another relatively small scale engagement where a numerically inferior force surprised and routed Montrose's army and the decisive blow was struck by the cavalry.¹⁸⁶

These successes were, however, balanced by significantly greater failures. While the cavalry hardly bears sole responsibility for defeats such as Kilsyth (1645), Preston (1648), Dunbar (1650), Inverkeithing (1651) and Worcester (1651), neither did it constitute a formidable capability which could have won them. The Covenanter and Engager leadership bear some of the responsibility for not fielding sufficient numbers of cavalry, but this is balanced by the growing difficulty of doing so in an increasingly fragmented society. The five comprehensive defeats mentioned above reflect moments when the Covenanters' military capability itself was fractured. At the time of Kilsyth the most experienced cavalry was in England; the cavalry at Preston lacked the many men who did not support the Engagement; the army at Dunbar had been heavily purged before the battle; and at Worcester the cavalry lacked the men who had had to stay in Scotland to fight the English army there. The effectiveness of the cavalry at the

¹⁸⁵ Inter alia. Firth, *Marston Moor*, pp. 48-50. Young Peter, *Marston Moor*, p.107.

¹⁸⁶ Inter alia. *Stevenson, Revolution and Counter-revolution*, p. 39. Cowan, *Montrose*, pp. 235-237, p. 288. Buchan *Montrose*, pp. 282-290, p. 358.

Battle of Preston was not adequately tested as the battle was lost, and the campaign with it, before they could intervene in strength. The cavalry did perform well in screening the retreat of the army, but ultimately saved themselves, leaving General Baillie's unsupported infantry to surrender to Cromwell. When Baillie later listed the reasons for his surrender, the first was that 'We were abandoned by all our Horsemen'.¹⁸⁷

Given the circumstances of the Dunbar campaign, it is impressive that the cavalry were sufficiently disciplined and motivated to charge Cromwell's veterans, but the simple facts are that they were beaten and driven off, thus exposing the infantry's flank to the decisive attack. Their quality is highly questionable, less because they were beaten, than because so many survived and escaped to Stirling, once more leaving the infantry to its fate. The same men provided the core of the king's army in 1651 and although those under the direct command of the king and William Hamilton, 2nd Duke of Hamilton performed well at Worcester, the majority inexplicably watched while the army, which they could perhaps have saved, was defeated. David Leslie was described by Clarendon as 'dispirited and confounded' and the report to the English Parliament said that during the battle 'he rode up and down as one amazed or seeking to fly', providing uncertain leadership to already dispirited men. Those who survived to flee were captured or killed in the pursuit after the battle, marking an ignominious end to the field army's cavalry.¹⁸⁸

The effectiveness of the Covenanter cavalry varied significantly over time. In 1639 there is no reason to doubt competence at low level activities such as patrolling, but the dangerous flaw was that it was not concentrated to support the main army at Duns Law. Alexander Leslie could not have fought anything but a defensive action without it, meaning that without reinforcement he could not have defeated the king in battle. There is more evidence of effectiveness in 1640 with the success at Newburn and the capture of northeast England, but again the cavalry was not tested. The first such test was at Marston Moor which on balance it passed with David Leslie's contribution to victory outweighing the poorer contribution of the regiments which broke. The peak of effectiveness was the projection of force at range and the Battle of Philiphaugh (1645). Arguably the battle was a foregone conclusion, with Montrose's force so diminished, but it was hard fought and hard won, nevertheless. It also ensured the survival of the regime in the short term. In January 1646 there were some 5,000 cavalymen, mostly veterans, in England as part of the ASL&C, which was the most potent cavalry force that the Covenanters were to field.

¹⁸⁷ Laing, *Baillie*, iii, p. 456.

¹⁸⁸ Clarendon, *Rebellion*, v, p. 189. *CSPD 1651*, p. 437.

The decline in effectiveness from the Engagement onwards was part of the general decline in military capability and the small success of Carbisdale in no way made up for the crushing defeats elsewhere. Although some, if not all, of the cavalry fought well at various points in the campaigns involving the battles of Preston (1648), Dunbar (1650) and Worcester (1651), it is noteworthy that on each occasion they succumbed to the instinct for self-preservation and left the infantry to their fate. This, it must be stressed, was not unusual for the period: the Parliamentary cavalry broke out of the encirclement before the infantry surrendered at Lostwithiel (1644) and the Royalist cavalry were not on hand when their infantry was destroyed at Naseby (1645). For the Engagers and the Covenanters this indicates, at least amongst the cavalry leadership, questionable commitment to the cause and certainly an unwillingness to risk all in its name: consenting men had become grudgingly compliant men. In 1651 they were damned by David Leslie before Worcester who said that as ‘well as they look they will not fight’ and by the king afterwards who called them ‘beaten men [who would not] stand by me against the enemy’.¹⁸⁹

Conclusion

The basic organisational unit of the Covenanter cavalry was the troop which varied in size from 60 to 80 men. Initially these were either grouped together under a nominated commander to create mass when required or one or more troops were grouped with infantry regiments. Although the ten troops designated for Ireland in 1642 were partly organised as a regiment, the Covenanters only formally adopted such structures in late 1643, influenced by David Leslie as Major General of Horse. Regiments became the preferred way of commanding cavalry en masse, which was necessary in battle, but separate troops also had utility and were retained as lifeguards, troops attached to infantry regiments and to provide additional capability for garrisons.

The most common make up of a regiment was a mixture of harquebusiers and lancers, probably half and half, but weapons attrition would have made any enduring ratio unlikely. There is evidence from 1640 onwards that many lancers were simply harquebusiers with the addition of a light lance. Dragoons were permanent additions to some regiments from at least 1644 to provide additional firepower and they could be temporarily attached from dragoon regiments for others as necessary. Given that regiments also varied in size, commanders were given considerable leeway as to how they organised their units, rather than conforming to an official template. This was not unique to Covenanter cavalry. Examples from the of Swedish musters records in Germany between 1636 and 1644 include cavalry regiments of 2, 4, 5, 6, and 9

¹⁸⁹ Atkin, *Civil War in Worcestershire*, p. 244. William Matthews, *Charles II's Escape from Worcester*, (Berkeley and Los Angeles 1966), p. 38.

companies.¹⁹⁰ William Purefoy received a commission from the earl of Essex ‘to be colonel of a regiment of horse and dragoons raised in co. Warwick’ in 1643 which was a deliberate decision by either Essex or Purefoy to raise a mixed regiment. The relative sophistication of the cavalry in the ASL&C did not survive the societal divisions which existed from the Engagement onwards, when opposing factions undermined what could be achieved. Prior to that it is clear that the Covenanters were engaged in discussion and debate concerning organisations, drawing on European examples but also working with the English Parliament to develop bespoke solutions.

The Covenanters struggled to provide sufficient horses and equipment for the cavalry from at least 1644 onwards. One result of this was a lower proportion of cavalry to infantry compared to other contemporary armies. Given that this was so, even with the support provided by the English Parliament in the case of the ASL&C, the struggle must have been all the greater without that support after 1647. The implication of this is that, while contemporary drill books provide clear descriptions of the mounts and equipment of the various categories of cavalymen, the reality is that they would not have been uniformly equipped even on mobilisation. Over time a harquebusier could lose one or both of his pistols and a lancer his lance leaving both with only a sword until replacement equipment became available. Only some would have had helmets and armour, which were also susceptible to damage and in the worst case they did not even have had a horse. This, it must be emphasised, was the same attritional challenge faced by all of the armies in the field, but the Covenanters were unable routinely and easily to manage the resulting shortfalls and the lessening of effectiveness that ensued. Added to this is the issue of the size and quality of the available mounts which must have varied considerably between the mounts sourced in England and the smaller Scottish breeds. It is unlikely, however, that this was a serious handicap except when engaging better mounted enemy cavalry. Steady infantry could hold off the best mounted cavalry and broken infantry was vulnerable to cavalry, however mounted. In a large scale battle, the cavalry’s first target was the enemy cavalry in which case smaller mounts would have been a weakness, but most cavalry activity was not on the battlefield. The majority of the time the Covenanter cavalry was, therefore, as effective as any other. On the battlefield fighting enemy cavalry, however, the evidence shows that Covenanter cavalry was consistently beaten and the quality of its mounts must have been a factor. The exceptions to this are Newburn, where sheer numbers and well-handled artillery made the difference, and Marston Moor where David Leslie’s success was won in cooperation with Cromwell’s better mounted troops, noting that the cavalry on the right flank was defeated.

¹⁹⁰ Riksarkivet, *SE/KrA/0022/1636/1*, *SE/KrA/0022/1639/14*, *SE/KrA/0022/1639/15*, *SE/KrA/0022/1644/2*.

The tactics, organisation and equipment of the Covenanter cavalry were typical of the period, with some minor differences, such as the use of the light lance. The evidence shows that the number of higher quality mounts was only enough to mount a proportion of the cavalry, and that therefore there was a shortages of suitable horses. This would have been a limitation in both attack and defence when facing better mounted cavalry but otherwise would have been manageable. The cavalry reflects the fragility of Covenanter military capability: sufficient consenting or complying men were available and enough equipment was found to mobilise adequate forces, but the resources required to sustain them were lacking. In 1639 this was compounded by the failure to concentrate enough cavalry with the main army on the border, handing the king a significant advantage which he failed to see. Weakness in the Second War was obscured by Royalist shock after the fall of Newcastle and mitigated by the Cessation of Arms and the political opposition to the king in England. The cavalry of the ASL&C was the most capable that the Covenanters fielded, as was demonstrated at Marston Moor (1644). The ASL&C's cavalry maximised its potential by combining harquebusiers, lancers and dragoons in individual regiments, although it still lacked the power to defeat better mounted and equipped enemy cavalry. Its underlying fragility was masked by the support provided by the English Parliament which arguably underpinned its few successes. Thereafter, the divisions, antagonisms and enmity in Scottish society undermined both the cavalry and the armies, pitting state, Kirk, people and army against each other to the detriment of military capability. The Covenanters did not lose in the long run because of deficiencies in their choice of cavalry equipment, organisations, or basic tactics not least because, with minor exceptions, these simply mirrored those of their opponents. They lost because they were short of men, equipment, horses and, arguably, enough consenting, gutful men.

Chapter 6 - Artillery

Introduction

When its firepower was properly integrated with the shock action of cavalry or infantry, seventeenth century artillery could be a key factor in any battlefield victory. Monro wrote in his *Expedition* that at Breitenfeld (1631) the ‘victory was obtained by the force of our cannon alone’, although he exaggerated somewhat in his enthusiasm: victory was won by the combination of firepower and shock action.¹

Artillery made a similar contribution at Megray Hill (1639) and Newburn (1640), creating the conditions for victory, albeit on a much smaller scale.² Analysis of the Covenanters’ more significant battles and sieges (see Tables 6.3 and 6.4), however, shows that artillery seldom decisively influenced the outcome. An examination of Covenanter trains of artillery between 1639 and 1651 clearly shows that until 1648 the Covenanters were well equipped (see Table 6.2), meaning that lack of artillery was not a factor on the battlefield until the Engagement. This chapter will consider the leadership, organisation, equipment and technical limitations of the Covenanter’s artillery arm to determine its effectiveness.

As established in the Introduction, there is a broad consensus in the historiography that artillery’s main role was in siege warfare as its lack of mobility limited its usefulness on a battlefield. Even then, the scholarship makes the case that it was seldom the decisive arm either in sieges or in battles.³ The historiography is, however, under-developed in that it does not address why artillery was not the decisive arm in its main role. There is only limited consideration of how it was used and there is confusion about effective ranges and accuracy.⁴ Most of the scholarship concerning leather cannons is simply wrong: they were not used by the Covenanters until James Wemyss became the general of artillery in 1649.⁵ Similarly, the descriptions of the multi-barrelled frames are confused and often completely inaccurate.⁶ There is a lack of analysis of Alexander Hamilton’s bespoke artillery designs, particularly his lightweight 12-pounder, which was an innovative design intended to address the lack of mobility in larger calibre guns.⁷ A significant gap in the historiography concerns the consequences of the low levels of contemporary scientific and technical knowledge, the most significant of which was great inaccuracy at all but the shortest of ranges. This chapter addresses these issues.

¹ Monro, *Expedition*, p. 219.

² Terry, *Alexander Leslie*, pp. 117-119.

³ Inter alia. Gentles, *New Model Army*, p. 36. Bull, *Furie of the Ordnance*, p. 164. Barrat, *Cavaliers*, p. 70. Tallett, *War and Society*, p. 33. Reid, *Crown, Covenant and Cromwell*, p. 13. Donagan, *War in England*, p. 87.

⁴ Firth, *Cromwell’s Army*, p. 70. Bull, *Furie of the Ordnance*, pp. 26-28, p. 106. McRae, *How the Scots Won the English Civil War*, p. 102. Terry, *Papers Relating to the ASL&C*, i, p. lxxxix, p. xci, p. 25. Hall, *Ballistics*, p. 52.

⁵ Bull, *Furie of the Ordnance*, pp. 10-12. Burnet, *Bishop Burnet’s History*, i, p. 31. Hime, *Mobility of Field Artillery*, pp. 433-444. Grosjean, *Unofficial Alliance*, pp. 184-185. Grosjean, Murdoch, *Scottish Generals*, p. 115. Nolan, *Allure of Battle*, p. 89. Grosjean in *Ships, Guns, and Bibles*, p. 127. Miller, *Swords for Hire*, p. 137.

⁶ Furgol, *Regimental History*, p. 42. Furgol in *Fighting for Identity*, p. 39, p. 46. Reid, *Scots Armies*, p. 27. Bull, *Furie of the Ordnance*, p. 12.

⁷ Furgol in *Scottish National Covenant*, p. 144. Edwards in *Fighting for Identity*, p. 243. Terry, *Alexander Leslie*, p. 180. Buchan, *Montrose*, p. 187. Serdiville, Sadler, *Siege of Newcastle*, p. 99. McRae, *How the Scots Won the English Civil War*, p. 101.

Sources and Methodology

An analysis of the effectiveness of Covenanter artillery capability requires (in addition to the consideration of its mobilisation and training in Chapters 2 and 3) an understanding of how it was led, organised, equipped and how it influenced the outcome of battles and sieges. Although artillery activity is generally underreported in primary sources there are many individual references to guns and gunners. Most commonly, these concern the great cost associated with guns, the prestige of capturing them, the difficulty of moving them or their inclusion in the defence of burghs or fortresses. Artillery therefore features regularly in intelligence reports before battles, in the lists of captured equipment, in army accounts, some burgh records, personal correspondence, personal diaries and contemporary histories, as will be shown below. Studying the Covenanters' two generals of artillery, Hamilton and Wemyss, is also necessary given the influence they exerted on the artillery capability. Both men were inventors, as well as gunners of repute, which attracted considerable interest in official reports, army accounts, letters and diaries. Enough references survive to reveal their tactical philosophies which informed changes in the artillery trains they formed and led and how the artillery performed in battle.

These references are, necessarily, unconnected fragments making the creation of a coherent picture challenging. Three texts that provide important context and which suffer less from this limitation are the accounts of the ASL&C (1644-1646), of the earl of Essex's Train of Artillery (1642-1645) and the Royalist ordnance records (1642-1646) transcribed by C.S. Terry, Simon Marsh and Ian Roy respectively. Overall, there is sufficient data to build a timeline showing changes in the organisation of Covenanter artillery trains including their size relative to their supported army and to compare this to other armies. Despite a general lack of detail showing how artillery was used during battles, there is sufficient evidence to determine how important it was in affecting most outcomes. This provides a means of assessing its overall effectiveness between 1639 and 1651 and of identifying any improvement or decline in performance. Additionally, the relative complexity of gunnery and its central role in siege warfare created a contemporary demand for textbooks which include a plethora of detail on the theoretical use of artillery. A comparison of the differences between theory and practice will provide a picture of how well the Covenanters understood and used (or intended to use) their artillery.

Generals of Artillery

The Covenanters had two generals of artillery: Hamilton from 1639 and Wemyss from July 1649.⁸ Both were professional gunners of long standing, although Wemyss had had less operational and command

⁸ RPS, 1640/6/47, 1649/5/220.

experience. Alexander Hamilton's European career began in the early 1620s and by 1629 he was the colonel of a regiment in Swedish service and had established a cannon foundry in Sweden, at Arboga. By 1631 he was the general of artillery in the marquis of Hamilton's army and the same year he was appointed governor of Hanau. He established a cannon foundry at Suhla in the Thuringian Forest, transferring to the Duke of Saxe-Weimar's employment after the death of Gustavus Adolphus in 1632. He had returned to Britain by August 1635. Throughout 1636 he participated in a survey of the king's castles and forts with the earl of Newport, the Master of the Ordnance and Francis Coningsby the Surveyor of the Ordnance. By mid-1638 he was back in Scotland and had established a cannon foundry at Potterow in Edinburgh. He was the Covenanter and Engager general of artillery until he was replaced by Wemyss in 1649, four months before his death in November of that year.⁹

There are few records of Wemyss' military service before 1638, but his son wrote in 1677 that his father had 'left home very young, went to Sweden, and served King Gustavus Adolphus in the war in Germany'. His uncle, Robert Scott, had been in Swedish service 1623-28, including as quartermaster general and in Danish service as the general of artillery 1628/29 which would have provided the opportunity for Wemyss to serve, but there is no evidence of this. In 1629/30 he moved to London with his uncle from whom he inherited his leather cannon designs which differed significantly from the Swedish version. Between 1631 and 1637 he lived in London and worked with Sir John Heydon, the Lieutenant General of the Ordnance while continuing his own experiments with lightweight artillery. In 1638 he was appointed Master Gunner of England and in that capacity he served the king in the Bishops' Wars. In early December 1643 he left London to take up the appointment of master of the ordnance in Sir William Waller's Parliamentary army. He served in that capacity until he was captured by the Royalists at Cropredy Bridge on 29 June 1644. He had been freed by June the following year and worked with the English Parliament's navy in testing the quality of guns and powder and outfitting ships with ordnance. By March 1648 he had returned to Scotland. He was appointed general of artillery in July 1649, a position he held until his capture at Worcester in 1651.¹⁰

Both men belonged to the pan-European school of thought favouring lightweight, tactically manoeuvrable field artillery which had originated with Maurice of Nassau and Gustavus Adolphus and would continue into the Napoleonic period.¹¹ As such, they had both also experimented with, designed

⁹ Inter alia. SSNE Database, 380. Hartlib Papers, HP42/13/2b. Fraser, *Earls of Haddington*, ii, p. 104, pp. 110-112. CSPD 1636-1637, pp. 363-364. Spalding, *Memorials of the Troubles*, i, p. 130. Balfour, *Historical Works*, iii, p. 434.

¹⁰ Inter alia. David Blackmore, *Arms and Armour of the English Civil Wars*, (Royal Armouries 1990), p. 90. DNB, Scott, Wemyss. SSNE Database, 4106. Fraser, *Family of Wemyss*, iii, p. 267. Edward Clarendon, *The History of the Rebellion*, (Oxford 1826), iii, pp. 502-503. RPS, A1648/3/7, 1649/5/220.

¹¹ Inter alia. Parker, *Military Revolution*, pp. 195-214. Bruce McConachy, *The Roots of Artillery Doctrine*, *Journal of Military History*, July 2001, pp. 617-640.

and manufactured lightweight artillery and other engines of war, which, as Hamilton himself described it, had ‘bene [his] custome and practise both at home and abroad for the most parte of [his] life’.¹² Their technical approaches to this differed significantly, however, with Hamilton designing and manufacturing bespoke lightweight iron guns and Wemyss continuing to develop his uncle’s leather gun designs of the 1630s.¹³ They also differed in the tactical deployment of those guns. Hamilton embedded his 3-pounder guns in the infantry regiments and supported them with heavier guns from the train as the situation required. Wemyss, however, concentrated all of his guns in the train and deployed them from there to support the infantry.¹⁴ Both systems were intended to provide additional firepower to the infantry using short range guns firing case shot, particularly as a defence against cavalry. Hamilton, however, adopted the latest European tactical system to do so, while Wemyss preferred the more traditional and inherently less responsive approach.¹⁵ This does not in itself explain the decline in the effectiveness of the artillery, but Wemyss’ tactical system was a retrograde step by removing integral firepower from the infantry.

In Hamilton and Wemyss, the Covenanters had two accomplished artillerymen: Hamilton was the better artillery tactician, but they both had formidable reputations. The mere rumour of Hamilton manufacturing cannons for the Covenanters in 1638 was enough to make the marquis of Hamilton write to the king to reassure him it was not so.¹⁶ Wemyss’ reputation was such that when captured at Cropredy Bridge in 1644 senior Parliamentary generals (Essex, Waller and others), lobbied to have him speedily exchanged and returned, while the king tried to persuade him to return to his service and rejoin him as his master gunner.¹⁷ Hamilton was the more accomplished artillery inventor and practitioner who was at the cutting edge of innovation for over a decade. He had a better understanding of the purpose of artillery than the more technical and abstract understanding of Wemyss. Hamilton’s approach was to design and produce simple and effective killing machines, while some of Wemyss’ ideas bordered on flights of fancy. An example was his idea for manufacturing a ‘chariot or waggon to carry 6 or 8 [one pounders] so mounted that the gunner in it, at passes and narrow ways, shall give fire continually in front, without hurting the horse’.¹⁸

Hamilton might be characterised as an artillery tactician and Wemyss as an artillery technician: Hamilton designed 12-pounder battlefield killers, while Wemyss designed ½-pounders, to be ‘mannaged

¹² HMC, *Supplementary Report on the Manuscripts of the Duke of Hamilton*, p. 49. Marsh, *Train of Artillery*, i, pp. 19-20.

¹³ Blackmore, *Arms and Armour*, p. 90.

¹⁴ Clarendon, *Rebellion*, iv, pp. 502-503.

¹⁵ Inter alia. C. R. L. Fletcher, *Gustavus Adolphus and the Struggle of Protestantism for Existence*, (New York 1895), p. 121. Dodge, *Gustavus Adolphus*, i, pp. 43-44. David Chandler, *The Art of Warfare on Land*, (London 1974), p. 111. Delbruck, *Modern Warfare*, p. 206. Wolke, *Gustavus Adolphus*, p. 18.

¹⁶ Gardner, *Hamilton Papers*, p. 35.

¹⁷ Donagan, *War in England*, p. 237. Young, Holmes, *English Civil War*, p. 161. DNB, *Wemyss*.

¹⁸ CSPD 1658-1659, pp. 35-36. RPS, 1648/3/48.

as musketts', which were more battlefield curiosities.¹⁹ Covenanter armies were all too often asked to attempt too much with too few resources, but under Hamilton between 1639 and 1647, their armies were remarkably well equipped in terms of numbers of guns (see Table 6.2). That changed dramatically between 1648 and 1651. In this period artillery support to the field army was so parlous that only in the most propitious of circumstances could it have influenced the outcome of a battle. At Newburn (1640), Hamilton seized such a moment and successfully integrated firepower with cavalry shock action to forge a victory, but the chance never came again. Wemyss simply never had such an opportunity, instead finding himself thrust into impossible situations in the disastrous battles at Dunbar (1650) and Worcester (1651). Wemyss must shoulder much of the responsibility for this decline in the artillery. The adoption of leather cannon in place of more powerful field guns in the Train and the abandonment of integral regimental guns must have been decisions made based on his advice. The Covenanter political and military leadership, however, must share in the responsibility because they accepted the advice. The challenges to the effective handling of artillery in battle were both tactical and technical and neither Hamilton nor Wemyss could guarantee overcoming them in any given situation.

Artillery

Covenanter artillery was organised and equipped in much the same way as Royalist and Parliamentary artillery. Of the weapons shown below, Hamilton's 12-pounders, 3-pounders and frames and Wemyss' leather cannon will be considered in detail in order to address errors and omissions in the historiography. Otherwise, the technical characteristics of the various categories of guns are well scrutinised in the historiography (although their effectiveness is not) and they are summarised in Table 6.1.

Categories of Artillery				
Category	Function	Examples	Shot weight	To Move
Siege	Battery of fortifications	Demi-cannon 24lbs Culverin 18lbs	16-24lbs	08-16 horses and by sea
Field	Anti-personnel	Hamilton's bespoke 12lbs Demi-culverin 12lbs Saker 5 or 6lbs	05-12lbs/ case shot	04-07 horses
		Hamilton's bespoke 3lbs Drake 3 or 4lbs Wemyss' leather cannon 3 or 4lbs	03-04lbs/ case shot	01 horse
'Engines'	Specialist tasks	Mortars Frames firing musket balls Wemyss' half pounders Petard explosive device	up to 150lbs 1/16 lbs 1/2 lbs n/a	Wagons
Table 6.1 ²⁰				
Note: weight of shot given is typical only as specifications of guns in each category varied.				

¹⁹ Dalton, *Scots Army*, pp. 171-172.

²⁰ Inter alia. Ward, *Animadversions*, p. 109. Eldred, *Gunners Glasse*, p. 15. Terry *Papers Relating, to the ASL&C* i, pp. lxxxix-xc, pp. 25-28, pp. 36-36, p. 117. Bull, *Furie of the Ordnance*, pp. 173-174. Marsh, *Train of Artillery*, i, pp. 13-20. Hall, *Ballistics*, pp. 166-171.

Artillery was routinely deployed in static defences across Scotland, such as those of Edinburgh and Leith, but to support a field army, it was organised into trains of artillery. A representative sample is shown in Table 6.2 with Royalist, English Parliamentary and Irish Confederate examples for comparison.

Comparison of Artillery Trains				
Date	Identifiers	Guns/Engines	Army Strength All Approximate	Total Guns
Covenanter				
1639 ²¹	Leslie/Hamilton	40-45 x 'peece of canon'	20,000	40-45
1639 ²²	Lord Johnstone	8 x 'field pieces'	300	8
1640 ²³	Siege of Edinburgh Castle	8 x 36-40lbr, 6 x 24lbr, 6 x 'not soe great', 7 x 'of noe great burden'.	1,200	27
1640 ²⁴	Leven/Hamilton	10 or 11 x 12lbr, 54 'field pieces' (probably regimental guns), 80 frames. 3 'peecees of batterrie' returned from army to Leith before invasion of England.	'27 regiments', 18,000	65/66 (3)
1642 ²⁵	Ulster/Hamilton	At least six 'great guns' and at least '4 field pieces'	10,000	10+
1644/45 ²⁶	ASL&C/Hamilton	8 x 24lbr, 1 x 18lbr, 60 x 12lbr, 88 case of frames.	23,000	69
1648 ²⁷	Engagement	10-20 x unspecified	20,000	10-20
1650 ²⁸	Leven/Wemyss	30 x 'small, great, and leather' guns, 30 x 1/2lbr.	22,000	30
1651 ²⁹	Leslie/Wemyss	29 x unspecified, 42 x 1/2lbr.	11,000	29
Other				
1639 ³⁰	Royalist/Col Gunn	8 x 'feeld peecees'.	2,500	8
1639 ³¹	Royalist/Charles I	40-50 x unspecified.	15,000	40-50
1640 ³²	Royalist/Charles I	6 x 16lbr, 4 x 12lbr, 10 x 6lbr, 30 x 3lbr	18,000	50
1642 ³³	Parliament/Essex	5 x 12lbr, 9 x 6lbr, 15 x 3lbr.	20,000	29
1643 ³⁴	Parliament/Essex	9 x 12lbr, 15 x 6lbr, 20 x 3lbr, 4 x multi barrelled 3-4lbr.	8,500	48
1643 ³⁵	Royalist/Hopton	'About 16 field-pieces'.	6,300	16
1644 ³⁶	Parliament/Waller	'24 pieces of ordnance great and small'.	9,500	24
1644 ³⁷	Royalist/Rupert	2 x 24lbr, 2 x 16lbr, 6 x 12lbr, 10 x 6lbrs.	3,000	20
1646 ³⁸	Confederate Irish	1 x 24lbr, 1 x 16lbr, 2 x 12lbr.	3,000	4
1650 ³⁹	Parliament/Cromwell	10 x 'siege guns', 12 'field pieces'.	16,000	22
1651 ⁴⁰	Parliament/Cromwell	No numbers but three trains (Cromwell's, Fleetwood's and Lambert's) were combined at Battle of Worcester.	28,000	--

Table 6.2

²¹ Laing, *Baillie*, i, pp. 210-211. Laggan, *Wariston 1639*, p. 55. Furgol, *Regimental History*, p. 5.

²² HMC, *Manuscripts of the Earl Cowper*, ii, p. 223.

²³ Somerville, *Memorie of the Somervilles*, ii, pp. 225-226. *Great Account*, p. 2.

²⁴ CSPD 1640, p. 622, p. 629. Furgol, *Regimental History*, p. 5. Fraser, *Earls of Haddington*, ii, p. 185.

²⁵ Stevenson, *Scottish Covenanters and Irish Confederates*, p. 151. NRS, *PA11/1*, f 95v. R. M. Young, *Historical Notices of Old Belfast*, (Belfast 1896), p. 52.

²⁶ Terry, *Papers Relating to the ASL&C*, i, p. 25. *A List of the Severall Regiments [...] Quartered Near Newcastle, 1644*.

²⁷ Walton, *Bloudy Battel at Preston*. Bull, Seed, *Bloody Preston*.

²⁸ *Routing the Scotish army near Dunbar*. Firth, *Battle of Dunbar*, pp. 24-25. Dalton, *Scots Army*, pp. 171-172.

²⁹ CSPD 1651, p. 317.

³⁰ Gordon, *Scots Affairs*, ii, p. 269-270. Spalding, *Memorials of the Troubles*, i, p. 207.

³¹ Fissel, *Bishops' Wars*, p. 24.

³² Fissel, *Bishops' Wars*, p. 109. CSPD 1640-1641, pp. 46-47, p. 438.

³³ Marsh, *Train of Artillery*, i, p. 17. Firth, *Cromwell's Army*, p. 23.

³⁴ Marsh, *Train of Artillery*, i, p. 17. Firth, *Cromwell's Army*, p. 23.

³⁵ Charles Chadwick, *Bellum Civile, Hopton's Narrative of his Campaign in the West*, (London 1902), p. 47.

³⁶ *An Exact Diarie, or a Breife Relation of the Progresse of Sir William Wallers Army*, (London, 1644). Bull, *Furie of the Ordnance*, p. 147.

³⁷ Roy Ian, *The Royalist Ordnance Papers 1642-1646*, Part 2, (Oxfordshire Record Society, 1975). Warburton Eliot, *Memoirs of Prince Rupert*, (London 1849), ii, p. 394.

³⁸ Gilbert John, *History of the Irish Confederation*, (Dublin 1890), vi, pp. 79-81, p. 84.

³⁹ Reese, *Cromwell's Masterstroke*, p. 220.

⁴⁰ CSPD 1651, p. 365, p. 386. Grainger, *Cromwell against the Scots*, p. 182. JW Willis Bund, *The Civil War in Worcestershire*, (London 1905), p. 230.

There were no fixed formulae to determine the number of guns required: the negotiations between the Scottish and English Parliaments in 1643 for example specified exact numbers of horse and foot but referred only to ‘a suitable train of artillery’.⁴¹ The composition of the train was decided by the general of artillery, sometimes in concert with a parliamentary committee which was then approved by parliament, the Committee of Estates or, in 1642, by the Privy Council.⁴² Frames and leather cannons were not unique to the Covenanters, versions of both having been used across Europe. The only substantive differences between Covenanter and other British Isles’ armies’ artillery, therefore, lay in Hamilton’s adoption of bespoke 12-pounders and the integration of 3-pounders into infantry regiments.⁴³ Table 6.2 shows that the Covenanters did not lack for numbers of guns in their artillery trains until the confused mobilisation and deployment of the Engagement in 1648. The data also shows that in 1640 the Covenanters left their siege train in Edinburgh when the main army invaded England and that Wemyss’ trains differed significantly from those of Hamilton. All of these issues will be examined below.

Inaccuracy and Poor Mobility

Before Galileo’s ballistic theory and Newtonian physics, gunners necessarily understood science in Aristotelian terms. This, for example, was seen in the belief that gunpowder contained the four elements of earth, fire, air and water.⁴⁴ Men were aware that it consisted of saltpetre, carbon and sulphur, but there was a belief as late as 1675 ‘that all the effect of gunpowder comes from the air that is compressed therein’, the sudden release of which propelled a cannon ball.⁴⁵ The reality was that guns of this period were so inaccurate that it was possible to fire at city walls from less than a hundred metres and miss completely, or indeed to aim at Edinburgh Castle and ‘not only [miss] the castle, but the wholl rock’.⁴⁶ In spite of contemporary textbooks arguing otherwise, this inaccuracy resulted in most engagements taking place at point blank range (see glossary), or less. William Eldred, Henry Hexham, Robert Norton and Thomas Smith gave that range for the most common types of 12-pounder as between 250 and 333 yards, the variation resulting from production differences in guns, gunpowder and cannon balls.⁴⁷ Depending on the gun in question, theoretical ranges out to 3000 yards could be achieved by 12-pounders, but the chances of hitting a target at that range were so vanishingly small that it was considered to be ‘but vain expense of powder, [if the target were] without the carrying of our guns point blank’.⁴⁸ As Bull pointed

⁴¹ RPS, 1643/6/84, 1643/6/86. Rushworth, *Collections*, 1642-1643, p. 486.

⁴² RPCS 1638-1643, p. 121. RPS, 1646/11/319, 1649/5/215. Stevenson, *Scotland under the Covenanters*, p. 92. Dalton, *Scots Army*, pp. 171-172.

⁴³ Inter alia. Charles Ffoulkes, *Inventory and Survey of the Armouries of the Tower of London*, (London 1916), ii, p. 471. Lt Col Fletcher, *The employment of Mitralleurs During the Recent War*, Journal of RUSI, Volume 16, (London 1873), p. 29. William Reid, *Weapons Through the Ages*, (New York 1986), p. 81. John Gwynne, *Military Memoirs of the Great Civil War*, (Edinburgh 1822), p. 42.

⁴⁴ Whitehorne Peter, *Certain Ways for the Ordering of Soldiers*, (London 1573).

⁴⁵ Hall, *Ballistics*, p. 63.

⁴⁶ John Corbet, *An Historicall Relation of the Military Government of Gloucester*, (London 1645), p. 46. Somerville, *Memorie of the Somervilles*, ii, p. 233.

⁴⁷ Eldred, *Gunnery Glasse*, p. 69. Hexham, *Third Part [...] of the Art Militarie*, p. 3. Norton, *The Gunner*, p. 52. Thomas Smith, *The Art of Gunnery*, (London 1600), p. 67.

⁴⁸ Granville Penn, *Memorials of the Professional Life and Times of Sir William Penn from 1644 to 1670*, (London 1833), i, p. 122.

out however, even a miss could have a secondary effect given that ‘a round did not stop dead when it hit *terra firma*’ but could bounce and continue bouncing for hundreds of yards, making it ‘potentially lethal along a remarkably long path’.⁴⁹

One advantage of short range engagement was that it was possible to aim a gun by sighting along the barrel when it was level and be fairly sure where the ball would strike, but this was still an inaccurate method of aiming and remained a serious tactical handicap. The success of the Covenanter artillery fire during the engagement at Newburn in 1640 stemmed from the fact that Hamilton was able to deploy his guns, unnoticed, within point blank range and on higher ground.⁵⁰ Even the gun mounted in Newburn church steeple was only 300m from the south bank of the river meaning that greater accuracy was possible when firing at an enemy who could not defend the ford without staying put. The Royalists were at a further disadvantage firing uphill because they had to elevate their gun barrels and could not therefore aim by sighting along their length, having to rely instead on trial and error. The Royalist forces were in an impossible position, under fire and unable to respond effectively. It is of note, however, that in spite of the dominance of the Covenanter artillery, the decisive action was the cavalry charge: artillery created the conditions for victory, it did not in itself deliver victory.⁵¹ Newburn stands out as one of the very few opportunities which the Covenanters had to demonstrate the effectiveness of their artillery.

Almost as challenging as the inaccuracy of guns was their lack of mobility, a result, primarily, of their weight. This explains why all but the smallest field guns were emplaced before a battle began and were seldom moved until the battle was over. Wanklyn cites the first Battle of Newbury (1643) as ‘the first and only time’ during the First English Civil War that heavier guns were repositioned during the fighting, which was made possible because of the network of roads and tracks on the battlefield. At the other extreme, Tallet noted that at ‘Rocroi [1643] the French gunners toiled for hours to move their two pieces a few hundred yards’.⁵² A further battlefield weakness was that the enemy cavalry and infantry, being more agile, could simply move out of the guns’ range or arcs of fire. This was the case at Marston Moor in 1644 when, according to Sir James Lumsden, while waiting for the last of the infantry to arrive, the Covenanters ‘advanced [their] Canon, and entered to play on them on the [Royalists’] left wing, which made them a little to move’.⁵³ There was an ineffective exchange of fire, which was to be expected as the guns were firing beyond point blank range. Of particular note in this battle is that it was dragoon

⁴⁹ Bull, *Furie of the Ordnance*, p.26.

⁵⁰ CSPD 1640, p. 38.

⁵¹ Rushworth, *Collections, 1639-1640*, pp. 1237-1238. HMC, *Fourth Report, Appendix*, (London 1874), p. 295. James Hall, *Providence Improved by Edward Burghall*, (London and Redhill 1889), pp. 17-18. HMC, *Reports on Manuscripts in Various Collections*, (London 1901), p. 256. CSPV 1640, p. 75. CSPD 1640-1641, p. 39.

⁵² Wanklyn, *Military History*, p. 264. Tallett, *War and Society*, p. 32.

⁵³ Sir James Lumsden, *The Glorious and Miraculous Battell at York*, (Edinburgh 1644).

firepower, which weakened the ranks of Newcastle's Whitecoats enabling their defeat by the allied cavalry, probably because of the difficulty of moving the guns.⁵⁴

Movement off the battlefield was also difficult because of poor road networks, which deteriorated further in bad weather, and because bridges were not built to support the weight of artillery. This led to the heaviest being transported by sea or river, which clearly suggests that there were impassable routes and locations which were inaccessible to siege artillery.⁵⁵ Field pieces, even though lighter and more mobile, were nevertheless frequently dismounted from their carriages and carried in wagons for long moves, being reassembled in preparation for combat.⁵⁶ It was in an attempt to overcome these problems that lightweight artillery was developed in Europe from the late 1620s, the most relevant to the Covenanters being the 12-pounders, leather and regimental guns which will be considered below. Mobility was, however, achieved at the expense of reduced range and a reduction in the damage caused against hard targets.

Field Artillery

The Covenanters' 3-pounders belonged to a category of guns frequently referred to as regimental or Swedish guns and they were integral to infantry regiments, not part of the artillery train.⁵⁷ The most numerous version was designed and manufactured by Alexander Hamilton and, made of iron, they were in service from 1639 onwards. The guns were a version of those which Hamilton had helped to design and produce while in Swedish service which had replaced leather cannon and which he had continued to develop in the employ of the Duke of Saxe-Weimar.⁵⁸ Their purpose, being quick and easy to load, was to increase the firepower of the infantry particularly when attacked by cavalry, although they would also have been effective against infantry.⁵⁹ They were light enough to be manoeuvred on the battlefield with their regiment by a single horse or two or three men.⁶⁰ Having wide muzzles to maximise the spread of the case shot, however, they would have been too dangerous to their own side to be fired when two forces engaged at close quarters.⁶¹ This would have made them far easier to use in a defensive fight when their own infantry would have been stationary, rather than in an attacking one, when there would have been little time before the infantry marched into their arc of fire. Another, more conventional 3-pounder

⁵⁴ Somerville, *Memorie of the Somervilles*, ii, pp. 347-348.

⁵⁵ CSPD 1637-1638, p. 594. CSPD 1639, p. 4. RPS, 1646/11/85. CSPD 1650, p. 288, p. 369. Charles Firth, *Scotland and the Commonwealth*, (Edinburgh 1895), p. 2. *Proceedings of the Scottish Army [...] before Newcastle*, (London 1644).

⁵⁶ CSPD 1640, pp. 615-616. *The True Informer Decemb 2 to Decemb 9 1643*, (London 1643), p. 91. RPS, 1646/11/357.

⁵⁷ Inter alia. Fletcher, *Gustavus Adolphus*, p. 121. Terry, *Alexander Leslie*, p. 116. Roberts, *Gustavus Adolphus*, p. 232. Lynn, *The French Army*, p. 501. Nolan, *Allure of Battle*, p. 89. Wolke, *Gustavus Adolphus*, p. 18.

⁵⁸ Fraser, *Earls of Haddington*, ii, p. 104.

⁵⁹ Roberts, *Essays in Swedish History*, pp. 69-70.

⁶⁰ Knowler, *Strafforde's Letters*, ii, p. 271. CSPD 1640, p. 616.

⁶¹ Le Prince Napoleon Louis Bonaparte, *Études sur le passé et l'avenir de l'artillerie*, (Paris 1846), i, p. 322.

design, cast in bronze, was manufactured in unknown numbers by James Monteith. A 1642 example survives which Stevenson and Caldwell considered to incorporate at least some aspects of Hamiltons design.⁶² Royalist and Parliamentary armies also used smaller guns in the same role, but such guns were usually part of the artillery train and therefore not guaranteed to any given foot regiment.⁶³ Covenanter infantry regiments were equipped with these guns on a scale of two per regiment, certainly from 1640 onwards, including the regiments in Ireland. The local regiments which remained in the shires when the fourth and eighth men had deployed were not equipped with them, for the simple reason that there were not enough guns.⁶⁴

Given the parlous state of the Engager army in 1648 and its weak artillery train, it is not surprising that the infantry regiments did not deploy with 3-pounders guns.⁶⁵ In 1650, at least nine 3-pounders were incorporated into the defences of the burgh of Edinburgh, making it likely that they were used more widely in the fortifications which David Leslie used to frustrate Cromwell.⁶⁶ After the Battle of Dunbar (1650) Cromwell reported that he had captured ‘all their artillery, great and small - thirty guns’.⁶⁷ Given that there were at least 15 Covenanter infantry regiments at Dunbar, this is too few for two guns per regiment plus an artillery train.⁶⁸ The train for the Worcester campaign of 1651 was described as ‘a very good train of 16 guns’ or only 14 according to *Mercurius Politicus*. James Turner dismissed them as merely ‘some field pieces and leather cannon’: all three cases indicate that there were no guns integral to the infantry regiments.⁶⁹ While there is evidence for their use during sieges where 3-pounder ammunition was issued to infantry regiments, there is otherwise none for their use in battle across the whole period.⁷⁰ This may simply reflect the dearth of primary source descriptions of artillery in combat, or it may suggest that it was far easier to integrate their fire in a defensive battle than it was in an offensive one, limiting the opportunities for their effective use.

Hamilton’s 12-pounders demonstrate his clear understanding of the practical challenges of fighting with artillery, although given the level of scientific knowledge at the time, he would have been unable to fully explain them.⁷¹ Hamilton’s starting point must have been a tactical requirement to engage at 5-600m. There was no need, therefore, to cast a gun capable of withstanding the firing stresses caused

⁶² Stevenson and Caldwell, *Leather guns*, p. 314.

⁶³ Young, Holmes, *English Civil War*, p. 334. Thomas Michel, *The Last Newes from the Armie*, (London, June 20th, 1647), p. 6.

⁶⁴ *HMC Laing Manuscripts*, i, pp. 216-217. *His Maiesties passing*, p. 4. *Instructions from the Committee of Estates*, (Edinburgh, 20 October 1643), p. 3.

⁶⁵ Turner, *Memoirs*, p. 59.

⁶⁶ Wood, *Burgh of Edinburgh 1642-1655*, pp. 253-254.

⁶⁷ Carlyle, *Cromwell's Letters*, i, p. 471.

⁶⁸ Inter alia, Johnston, *Essential Agony*, p. 217.

⁶⁹ Carte, *Original Letters and Papers*, i, p. 409. *Mercurius Politicus*, Number 52 May 29 – June 5, 1651, p. 833. Turner, *Memoirs*, p. 94.

⁷⁰ Terry, *Papers Relating to the ASL&C*, i, p. 89-141.

⁷¹ *Encyclopædia Britannica*, Volume 5, (Edinburgh 1780), pp. 3439-3440. Hall, *Ballistics*, pp. 50-52.

by exploding enough gunpowder to fire a heavy ball out to 1500m. He produced a smaller, lighter gun that was easier to transport, which could manoeuvre on the battlefield if necessary, and was cheaper and easier to produce, which he did from 1643. A contemporary description in 1644 was of ‘a new kind of great guns, never before discovered [...] that will carry a twelve pound bullet, to do great execution at a distance, and yet so framed that a horse may carry one of them’.⁷² Hamilton’s gun would have had a point blank range comparable to that of a regular 12-pounder or it would not have been adopted to fill that specific niche on the battlefield. Ingenious though they were, and although they were in action at the Sieges of Newcastle and Hereford, they were not used in any of the type of defensive battles for which they were optimised making their overall contribution limited.⁷³

Leather guns were so called because the outer casing was of leather, but the gun itself consisted of a thin metal barrel bound in wire and rope, reinforced with wood or metal and set with plaster, although there were different versions.⁷⁴ Modern analysis of surviving guns shows that, among other differences, Wemyss’ design had a wrought iron core while the Swedish design had a copper core.⁷⁵ The design prioritised their being lightweight and manoeuvrable which resulted in significant limitations such as overheating, lack of stability and fragility. These were so significant that in the Swedish army they were dispensed with in 1631 after only three years’ service, as soon as a viable alternative was developed, in which Hamilton played a part.⁷⁶ James Wemyss persisted with improving his version of the leather cannon, which for some time suffered from the same limitations as the Swedish model. It took him until the end of 1643 to produce a practicable weapon when he demonstrated that ‘that they doe not lift themselves up any more and so misse their Marke, [and] you may shoote with them all the day long a hundred shot or more without any breaking’.⁷⁷ The purpose of leather guns was the same as that of the more common iron 3-pounders. Turner judged that they were more expensive and more prone to burst than the iron guns which replaced them.⁷⁸ Thomas Binning dismissed them as the ‘Leather Guns, by which the King and Country hath been cheated’.⁷⁹ Gun for gun there was little difference in the effect delivered by iron and Wemyss’ later leather cannons, but the latter bestowed no advantage and were more difficult and more expensive to manufacture.

⁷² *Scots March from Barwicke to Newcastle*, 1644, p. 2.

⁷³ Terry, *Papers Relating to the ASL&C* i, pp. 89-141.

⁷⁴ Blackmore, *Arms and Armour*, p. 90. Chandler, *Art of Warfare*, p. 111. M L’Abbe. Francheville *L’Histoire des Dernieres Campagnes [...] de Gustave Adolphe en Allemagne*, (Berlin 1772), pp. 316-317.

⁷⁵ Bull, *Furie of the Ordnance*, pp. 10-12.

⁷⁶ Francheville, *Histoire des Dernieres Campagnes*, p. 318.

⁷⁷ Hartlib 30/4/92B, 93A.

⁷⁸ Turner, *Pallas Armata*, p. 189.

⁷⁹ Thomas Binning, *A Light to the Art of Gunnery*, (London 1676), p. 104

The Covenanters did not use leather cannons until after July 1649 when James Wemyss was appointed as the general of artillery.⁸⁰ Before that date there is no evidence for their use, and much evidence for iron guns filling the same tactical role, although leather cannon feature erroneously in the historiography as a favoured Covenanter weapon from 1639.⁸¹ It would have been remarkable had Hamilton written off his more effective iron 3-pounder and returned to the inferior leather cannon design and the evidence simply does not support this. It would also be difficult to explain his taking the logical next step in his research in developing a lightweight 12-pounder if he had re-embraced the leather cannon concept. The sole near contemporary reference was by Bishop Burnet who wrote (sometime after 1683) of ‘guns of white iron, tinned and done about with leather’ being used at Newburn (1640). Burnett was therefore in error: Swedish guns had a copper barrel at the core, meaning that he described Wemyss’ design which was not seen in Scotland until 1649.⁸² Wemyss had continued to develop his uncle’s design and fielded multi-barrelled variants when he commanded the artillery in Sir William Waller’s Parliamentary army in 1643/44.⁸³ Following his appointment as the Covenanters’ general of artillery, in 1650 Wemyss conducted a demonstration for the king and members of the Committee of Estates, to prove that his leather guns were as effective as their metal equivalents.⁸⁴ There is evidence of leather cannon being used in Scotland, and being prized for their mobility, as late as 1689, but this positive reputation must be taken in the context of a reliable and effective weapon only having existed from late 1643 onwards.⁸⁵

‘Engines of war’ was a term often used to describe other specialist weapons carried by the artillery train, such as mortars, petards and frames. Mortars fired cannon balls or incendiaries at elevations above 45 degrees allowing them to fire over walls into defended positions. A petard was a reusable, bell-shaped device which was filled with gunpowder and attached to a gate so that when fired it damaged or destroyed the gate or its locking mechanism.⁸⁶ The frames were a version of the organ guns found on the continent which were multiple musket barrels mounted on a single platform which were fired simultaneously. Robert Ward’s 1639 *Animadversions of War* included instructions for ‘How a frame of Musquets are to be made’. His frame consisted of three tiers, each of 12 musket barrels, with each tier fired in a single volley. He wrote that they were ‘very excellent both in defence of Breaches, Bridges, Ports, or to be

⁸⁰ RPS, 1649/5/220.

⁸¹ Hime, *Mobility of Field Artillery*, p. 434. Fraser, *Earls of Haddington*, ii, p. 30. Terry, *Alexander Leslie*, p. 121. Firth, *Cromwell’s Army*, p. 148. Grosjean in *Ships, Guns, and Bibles*, p. 127. Edwards in *Fighting for Identity*, p. 243. Grosjean, *Unofficial Alliance*, p. 184. Miller, *Swords for Hire*, p. 137. Grosjean, Murdoch, *Scottish Generals*, p. 99, p. 115.

⁸² DNB, *Gilbert Burnet*. Burnet, *Burnet’s History*, i, p. 31. Stevenson and Caldwell, *Leather guns*, p. 303. Bull, *Furie of the Ordnance*, pp. 10–12.

⁸³ Rev T. W. Webb, *Military Memoir of Colonel John Birch*, (Westminster 1873), p. 87. *Mercurius Aulicus*, The 26 Weeke, ending June 29, 1644, p. 1056.

⁸⁴ NRS, PA12/5. Stevenson and Caldwell, *Leather guns*, p. 305.

⁸⁵ *RPCS 1686–1689*, p. 491, p. 516.

⁸⁶ H. L. Blackmore, *Armouries of the Tower of London*, (London 1976), i, p. 235, p. 238. Ward, *Animadversions*, p. 113.

plac'd before the divisions of Pikes in Battell' and referenced similar weapons being used in Europe.⁸⁷ One reference is to the Siege of Ostend in 1604, with a contemporary account of the battle describing the defenders having 'a great number of planks, to every one of which they did fasten twelve Muskets, [which could] discharge all at once'.⁸⁸

As noted in the Introduction, the Covenanters' frames have been variously described by historians as 'groups of large muskets mounted on a box', 'multi-barrelled small-caliber guns', 'multi-barrelled leather guns mounted on carts', both a gun and a gun carriage and as an Arquebuse à Croc.⁸⁹ None of these accurately describe the frames: they were simply Hamilton's version of a well-known European 'engine', the organ or orgue. They were described by Henry Vane, one of the king's English secretaries of state, in August 1640 as 'carriages that shoot six muskets off one carriage of barrels greater than muskets'.⁹⁰ Although the musket barrels on the frames were of a larger calibre than a standard musket, Vane still described them as muskets, suggesting that the increase in calibre was not great. There is unfortunately no physical description directly associated with the '88 Case of Frames' which are listed as part of the artillery train in 1644, but there is little reason to assume that they are not the weapons described by Vane in 1640 or an improved version of them.⁹¹ There are references in the army's accounts from 1644/45 which support this. James Watson, described as both 'lieutenant of the frames' and as a 'gunner' is recorded as having drawn 20 musket barrels, gunpowder and musket balls at various times. The musket balls were explicitly described as 'for charging the frames'.⁹² On that occasion the ammunition was issued at Middlethorpe, the site of a boat bridge near York which provided a link between Leven's and Fairfax's armies: defending a bridge was one of the frames' tasks specifically referred to by Ward. All 88 had been returned to the armoury in Leith by the beginning of 1647 and there is no evidence for any further use.⁹³

Siege Artillery

Artillery was more often used effectively in sieges than on the battlefield during this period for the simple reason that the target could not move, although accuracy remained a problem. To address this, the siege guns had to be positioned within musket shot of the walls, despite the risks which that entailed.⁹⁴ Siege

⁸⁷ Ward, *Animadversions*, p. 368.

⁸⁸ Edward Grimeston, *A True History of the Memorable Siege of Ostend*, (London 1604), p. 18.

⁸⁹ Furgol, *Regimental History*, p. 42. Furgol in *Fighting for Identity*, p. 39, p. 46. Reid, *Scots Armies*, p. 27. Bull, *Furie of the Ordnance*, p. 12.

⁹⁰ CSPD 1640, p. 622.

⁹¹ Terry, *Papers Relating to the ASL&C*, i, p. 25.

⁹² Terry, *Papers Relating to the ASL&C*, i, p. 113, p. 117, p. 120.

⁹³ NRS, PA15/3.

⁹⁴ CSPD 1640, p. 99. Chadwick, *Bellum Civile*, pp. 12-13. Corbet, *Military Government of Gloucester*, p. 46, p. 49, pp. 96-97. David Papillon, *A Practical Abstract of the Arts of Fortification and Assailing*, (London 1645), p. 115. John Roland Phillips, *Memoirs of the Civil*

artillery consisted of guns firing eighteen pound shot, usually culverins, or heavier shot such as the twenty four pounder demi-cannons. Smaller guns were occasionally used, but with little effect, to the extent that one pamphleteer claimed that using any guns smaller than 24-pounders did nothing but ‘make Cony-holes instead of breaches’.⁹⁵ Montrose took ‘great ordinances and field pieces’ north with him in June 1639 and at the Bridge of Dee, ‘the porth of the brige [was] battered down with the great cannon’⁹⁶. When he advanced north of Aberdeen to besiege Gight House, however, he took only field artillery and was unable to affect a breach.⁹⁷ Medieval defences remained proof against small cannon but were extremely vulnerable to large calibre siege weapons. Modern defences, however, were specifically designed to frustrate attacks by heavy artillery. Masonry walls could be protected by the construction of complex outworks or by using measures as simple as protecting the lower parts of the walls with earthworks using the spoil from a protective ditch. This absorbed the impact of cannon balls, making artillery attack less effective and making breaches far more difficult to achieve.⁹⁸

The Covenanters had a clear, if ambitious, objective when they invaded England in 1640. They intended to occupy the north east, specifically seizing control of Newcastle and its associated coal trade network which drew on the Durham mines to provide a lucrative and much needed source of winter fuel for London.⁹⁹ They hoped that this, combined with political unrest in England, would ‘compel the King and Kingdom of England to grant them more than ever yet they desired’.¹⁰⁰ The Covenanters’ siege artillery, however, was committed to the Siege of Edinburgh Castle, and although three ‘peecees of batterie’ were initially grouped with the army, they were sent back to Leith when it crossed the border.¹⁰¹ The invading army, therefore, had only field artillery in its train, as shown in Table 6.2. While this was a deliberate decision, it must be caveated by the fact that the Royal Navy’s blockade prevented movement of the heaviest guns by sea.¹⁰² As carriage by sea was the solution adopted in 1644 when the maritime threat was minimal, it is likely that in 1640 the Covenanters had no choice but to make a virtue out of necessity.¹⁰³ The advantage of this was that it improved the mobility of the army allowing a rapid strike south across the border to seize its objectives.¹⁰⁴ This increased mobility was balanced by a reduction in siege capability, but this was clearly a risk which the Covenanters were prepared to accept. Lack of siege

War in Wales and the Marches 1642-1649, (London 1874), ii, pp. 145-146. *A Narration of the Siege and Taking of the Town of Leicester the Last of May 1645*, (London 1645), pp. 5-6. Fairfax Thomas, *The Memoirs of General Fairfax*, (Leeds 1776), p. 29.

⁹⁵ DPP, *The Six Secondary Causes of the Spinning Out of this Unnatural Warre*, (London 1644), p. 67.

⁹⁶ Taylor, *Aberdeen Council Letters*, ii, p. 131.

⁹⁷ Spalding, *Memorials of the Troubles*, i, p. 198. Gordon, *Britane’s Distemper*, p. 23.

⁹⁸ Mahinder Kingra, *The Trace Italienne and the Military Revolution*, JMH, July 1993, pp. 431-446.

⁹⁹ Hartlib 16/4/80A. CSPD 1640, p. 480, p. 556. John Mabbitt, *Urban society and the English Revolution*, (Newcastle University, 2012), p. 110.

¹⁰⁰ CSPD 1640, p. 480. P. H. Donald, *New Light on the Anglo-Scottish Contacts of 1640*, Historical Research, June 1989, p. 229. Prynne, *Hidden Workes*, p. 186.

¹⁰¹ Fraser, *Earls of Haddington*, ii, p. 185.

¹⁰² Helling, *Navy*, pp. 64-66.

¹⁰³ *A True Relation of the late Proceedings of the Scottish Army [...] before Newcastle*, (London, 8th February 1644).

¹⁰⁴ CSPD 1640, p. 296, p. 301, p. 347, p. 359, p. 575. Laing, *Baillie*, i, pp. 257-262. Stevenson, *Revolution*, pp. 205-206. Gentles, *English Revolution*, p. 26.

artillery did not preclude the conduct of a campaign which required the capture of a city. Explosive mines, a blockade, treachery, a coup de main or an escalade were all options, particularly against a city as poorly fortified as Newcastle was in 1640: siege artillery was only one of the available siege weapons (see Table 6.4).¹⁰⁵

The train of artillery of the ASL&C included eight 24-pounder demi-cannons and one 18-pounder culverin which were used in the Sieges of York (1644), Newcastle (1644) and Hereford (1645).¹⁰⁶ For most of the Siege of Newcastle there were four siege batteries, three of which delivered practicable breaches, with mines dug under the walls providing another three. As well as the strength of the defences themselves, the availability of ammunition could be another limiting factor in siege warfare. During the siege of Edinburgh Castle in 1640 Archibald Campbell of Glencarradale wrote to the laird of Glenurquhy noting that ‘scarcity of powder’ was hindering operations.¹⁰⁷ Similarly, at Newcastle in 1644, Leven wrote to the English Parliament asking for resupply saying that ‘there [was] great necessity of Ammunition for the service here’.¹⁰⁸ The surviving records show that in the two months of the siege of Newcastle the Covenanter artillery batteries were issued with 1515 24lb and 18lb cannon balls, 2151 balls of 3-12lbs and 22,500lbs of gun powder. The gun powder issued for just two of the four mines amounted to 2,800lbs.¹⁰⁹ This demonstrates scale of the logistic effort required to besiege a city and powder and shot made up only a small part of the whole requirement.

Unlike a battle, where artillery fire was limited by the short length of the action, a siege could last for weeks or months. Artillery had to deploy close to the walls of a city or fortress to do meaningful damage. The further away a gun was sighted, the less chance there was of hitting the target in the first place and the less energy remained in the shot when it hit the wall to do damage. In his *Art of Gunnery*, Smith recommended that ‘Ordinance would be planted within 200 or 240 paces of the object to be overthrown’.¹¹⁰ In a pamphlet blaming poor procedures and tactics for lengthening the war, the author highlighted gunners deploying too far from their targets pointing out that if a gun was ‘but halfe a musket shot [from the wall] it is the more powerful’.¹¹¹ This left the gunners vulnerable to aimed fire from the walls and the guns themselves to sorties by the garrison. At Gloucester in 1643 a defender recorded that ‘in the intervalls of the great shot after each discharge our musketiers playd hard and killed foure

¹⁰⁵ CSPD 1640, p. 69. CSPD 1639-1640, p. 401.

¹⁰⁶ Inter alia. Terry, *Papers Relating to the ASL&C*, i, p. 25. Furgol, *Regimental History*, pp. 112-113.

¹⁰⁷ NRS, GD112/39/81/5.

¹⁰⁸ Terry, *Alexander Leslie*, p. 304.

¹⁰⁹ Terry, *Papers Relating to the ASL&C*, i, p. 112, pp. 117-120.

¹¹⁰ Smith, *Art of Gunnery*, p. 67.

¹¹¹ DPP, *Six Secondary Causes*, pp. 67-68.

principall Cannoneers'.¹¹² Artillery was only one means of prosecuting a siege: explosive mines, blockade and assault were also options. The choice of option depended upon the time available, the difficulty of digging mines, availability of siege artillery, strength of the defences and willingness to accept casualties. Edinburgh Castle in 1640, for example, proved impervious to artillery attack, mining and assault and was only surrendered when the garrison had been without fresh water, according to Balfour, for 14 weeks.¹¹³ It is clear, therefore, that although artillery could be extremely valuable in siege warfare, it was no panacea: there were a number of factors which could severely limit its operations.

Effectiveness

The effectiveness of Covenanter artillery may be determined by analysis of how it influenced the outcomes of battles and sieges. A commonly held view of field artillery was that when 'the ordnance began to play, [it only resulted in] a loss of time' and daylight to fight the battle.¹¹⁴ Monro, however, was of the opinion that 'the terror the cannon breeds is as much to be feared as the execution that follows'.¹¹⁵ This contradiction is explained by range and mobility issues limiting the artillery's effectiveness.

Assessment of the Influence of Covenanter Artillery in Battles			
Date	Battle	Artillery Influence	Key Explanations
15 June 1639 ¹¹⁶	Megray Hill	Maximal	Firing induced panic amongst the highlanders.
28 August 1640 ¹¹⁷	Newburn	Maximal	Firing at immobile targets at point blank range.
2 July 1644 ¹¹⁸	Marston Moor	Minimal	Initially, range too great. Regt guns not deployed.
15 August 1645 ¹¹⁹	Kilsyth	None	No evidence of artillery being deployed.
13 September 1645 ¹²⁰	Philiphaugh	None	Leslie had no artillery with his force.
5 June 1646 ¹²¹	Benburb	Minimal	O'Neil's deployment screened him from fire.
17 August 1648 ¹²²	Preston	None/minimal	Few guns and lack of coordination at army level.
3 September 1650 ¹²³	Dunbar	None	Surprise attack - artillery could not deploy in time.
20 July 1651 ¹²⁴	Inverkeithing	None	No evidence of artillery being deployed.
3 September 1651 ¹²⁵	Worcester	Minimal	Few guns, shortage of gunpowder.
Table 6.3			

Table 6.3 lists a number of "set-piece" Covenanter battles of various sizes and indicates the level of artillery influence on the outcome. In only two relatively minor actions was artillery a major factor in

¹¹² Corbet, *Military government of Gloucester*, p. 46.

¹¹³ Inter alia. Kenyon and Ohlmeyer, *Civil Wars*, Ch 6. John Barratt, *Sieges of the English Civil Wars*, (Barnsley 2008), Ch 4, Ch 10. Donagan, *War in England*, Ch 14, Ch 15. Balfour, *Historical Works*, ii, pp. 402-403.

¹¹⁴ *A True Relation of a Victory Obtained Over the Kings Forces*, (London 1645).

¹¹⁵ Monro, *Expedition*, p. 242.

¹¹⁶ Spalding, *Memorials of the Troubles*, i, pp. 207-208.

¹¹⁷ Rushworth *Historical Collections*, iii, pp. 1236-1238.

¹¹⁸ Firth, *Marston Moor*, pp. 17-79.

¹¹⁹ Laing, *Bailey*, ii, pp. 420-421.

¹²⁰ Cowan, *Montrose*, pp. 235-237.

¹²¹ John McDonnell, *Battle of Benburb*, p. 383.

¹²² Walton, *Bloudy Battel at Preston*, 1648.

¹²³ Carlyle, *Cromwell's Letters*, ii, pp. 538-539.

¹²⁴ Douglas, *Cromwell's Scotch Campaigns*, pp. 274-287.

¹²⁵ Atkin, *Cromwell's Crowning Mercy*, pp. 73-111.

victory and a lack of it was not the major factor in the defeats. Indeed, it is difficult to see how artillery could have increased its effect where it is shown as minimal or none. At Kilsyth Baillie, in his own words ‘marched with the regiments through the corns and over the braes, until the unpassable ground did hold us up’. This clearly indicates that the ground was not suitable for the passage of artillery.¹²⁶ At Benburb, O’Neil had no artillery but deployed so that the terrain masked his men from the fire of Monro’s guns, nullifying their effect.¹²⁷ Preston and Dunbar were so badly fought by the Covenanters that there was no way that artillery could have saved the day. Lack of guns and ammunition at Worcester was a real handicap and the battle might have been a closer run thing with more of both, but the real issue was that the bulk of the Covenanter cavalry would not fight (see Chapter 5). The potential of the Covenanter field artillery on the battlefield was not matched by its performance, but in that it only mirrored the situation with artillery in other armies.

Table 6.4 shows a representative group of sieges or capture of castles which the Covenanters conducted themselves or in which they participated. It is immediately apparent from the data that artillery was only one element of siege warfare, along with blockading, mining and other irregular operations.

Assessment of the Influence of Covenanter Artillery in Sieges			
Date	Location	Method	Outcome
Mar 1639 ¹²⁸	Edinburgh Castle	Coup de main	Stormed – minimal defence
	Dumbarton Castle	Subterfuge	Surrendered
	Douglas Castle	Show of force	Surrendered
Apr-Aug 1640 ¹²⁹	Edinburgh Castle	Artillery/mining/blockade	Surrendered
Jun-Sep 1640 ¹³⁰	Caerlaverock Castle	Artillery/blockade	Surrendered
Apr-July 1644 ¹³¹	York	Artillery/mining/blockade	Surrendered
Sep-Oct 1644 ¹³²	Newcastle	Artillery/mining/blockade	Stormed
Oct 1644 – June 1645 ¹³³	Carlisle	Blockade	Surrendered
July-Sep 1645 ¹³⁴	Hereford	Artillery/blockade	Siege abandoned after Kilsyth
Nov 1645-May 1646 ¹³⁵	Newark	Artillery/blockade	Surrendered on king’s orders
Table 6.4			

Of note in 1639 is that the Covenanters exploited a lack of preparedness to capture Edinburgh, Dumbarton and Douglas castles, but did not have the resources to capture or besiege Caerlaverock and Threave castles, both of which remained in Royalist hands. In 1640, despite a considerable train of siege

¹²⁶ Laing, *Baillie*, ii, pp. 420-421.

¹²⁷ McDonnell, *Battle of Benburb*, p. 376

¹²⁸ Laing, *Baillie*, i, pp. 195-196. Hope, *Public Correspondence of Sir Thomas Hope*, p. 87.

¹²⁹ Somerville, *Memorie of the Somervilles*, ii, pp. 225-226. Laing, *Baillie*, i, pp. 260-261. NRS, *GD112/39/79/2. CSPD 1640*, p. 446.

¹³⁰ Stevenson, *Scottish Revolution*, pp. 208-209. William Fraser, *The Book of Caerlaverock*, (Edinburgh 1873), ii, pp. 16-17.

¹³¹ Cooke, *Civil War in Yorkshire*, Ch10.

¹³² C. S. Terry, *The Siege of Newcastle by the Scots in 1644*, Archaeologia Series 2, 1899, pp. 180-258. Burns, *Diary of Mr Robert Douglas*, pp. 77-78.

¹³³ Isaac Tullie, *Narrative of the Siege of Carlisle 1644 and 1645*, (Uckfield 1988), pp. 27-56.

¹³⁴ Terry, *Alexander Leslie*, pp. 371-374. Webb, *Colonel John Birch*, p. 113.

¹³⁵ Terry, *Alexander Leslie*, p. 383, pp. 404-405.

artillery as shown in Table 6.2, and the accidental collapse of two sections of Edinburgh Castle's walls, the Covenanters had to rely on blockading the garrison. Caerlaverock surrendered after 13 weeks, when the king wrote to Nithsdale admitting there would be no relief and giving him permission to surrender.¹³⁶ The Siege of York was abandoned on the approach of Prince Rupert and the city subsequently surrendered as a result of Rupert's defeat at Marston Moor. At Carlisle the Covenanters only had 'three pece of small cannon' which were deployed near Stanwick church approximately 850m from the castle walls.¹³⁷ At Newark the Covenanters constructed two batteries, one north of the river protecting Muskham bridge and one to the west of Newark approximately 500m from the walls and 700m from the castle.¹³⁸ The ASL&C's accounts show that 'before Newark from the 28 of November 1645 to the 24 of March 1646' the only artillery ammunition issued was for 3-pounders.¹³⁹ Neither at Carlisle nor at Newark could so few field guns, so far from the walls, have directly influenced the outcome of the sieges. Newcastle (1644) therefore stands alone as the siege where Covenanter artillery played a major role in influencing the outcome, alongside successful mining operations. Artillery was an important part of the victory, but not the only one, which was typical of successful siege operations at the time.

Space precludes a detailed comparison of Covenanter artillery with that of other armies, but a general comparison is necessary. Until 1647, Covenanter field and siege artillery performed with an effectiveness which was similar to that of the other armies in the field. In an echo of Edinburgh in 1639, Waller, an English Parliamentarian commander, stormed the poorly defended Farnham castle on a single day in December 1642 using a petard to breach the gates.¹⁴⁰ The inconclusive encounter at Boldon Hill between the forces of Leven and the marquess of Newcastle in March 1644 included an exchange of artillery fire which was described in a broadsheet as being 'to little purpose'.¹⁴¹ At Marston Moor, where there were elements of five armies, no one's artillery stood out, albeit the exchanges of artillery fire were limited.¹⁴² The Battle of Naseby in June 1645 did not involve the ASL&C, but the artillery of both sides, once again, did little if anything to influence the outcome of the battle.¹⁴³ The Covenanter gunners at Tippermuir in September 1644 only managed to fire a single volley before their guns were overrun, which was one more than Waller's guns managed in the same year at Cropredy Bridge before they were captured by Royalists.¹⁴⁴ The Sieges of York, Carlisle and Newbury were joint affairs with English Parliamentarian troops, whose artillery clearly contributed no more than did the Covenanters'. The

¹³⁶ Fraser, *Book of Caerlaverock*, ii, pp. 16-17.

¹³⁷ Tullie, *Siege of Carlisle*, p. 54.

¹³⁸ Nottinghamshire Historic Environment Record, *Monument Records M5640, M5665*.

¹³⁹ Terry, *Papers Relating to the ASL&C*, i, p. 124.

¹⁴⁰ Rushworth, *Historical Collections, 1640-1644*, p. 82.

¹⁴¹ Terry, *Alexander Leslie*, p. 209. Serdiville and Sadler, *Siege of Newcastle*, p. 111.

¹⁴² Inter alia. Firth, *Marston Moor*, p. 74. Lion Watson, *A More Exact Relation of the Late Battell Neer York*, (London 1644).

¹⁴³ Gentles, *New Model Army*, pp. 36-37.

¹⁴⁴ Carte, *Original Letters and Papers*, i, pp. 73-74. George Wishart, *Memoirs of the Most Renowned Marquis of Montrose*, (Edinburgh 1819), pp. 79-80. *The True Informer Decemb 2 to Decemb 9 1643*, p. 91.

clearest success was at the skirmish at Newburn in 1640 where the Covenanter artillery defeated its Royalist equivalent with the latter being completely outfought.¹⁴⁵

From the Engagement onwards there was a very different picture, although the artillery in the Edinburgh and Leith defences in 1650 played its part in deterring direct attacks by Cromwell. At Dunbar the Scottish artillery was completely outfought. The larger field guns did not get into action before they were captured and any smaller guns, such as Wemyss' leather cannons, were outmatched by Cromwell's larger guns which engaged the Covenanter centre throughout.¹⁴⁶ At Worcester the disparity in capability was best demonstrated by the Covenanters suffering a shortage of guns and ammunition while Cromwell's forces massed no fewer than three trains against them.¹⁴⁷ Although Covenanter artillery had a potential advantage in Hamilton's bespoke guns, opportunities to exploit this were scarce, leaving little difference in overall effectiveness.

Conclusion

The Covenanter artillery inventory included four bespoke weapons: Hamilton's lightweight 3-pounders, 12-pounders and frames and Wemyss' leather cannons. The 3-pounders were Hamilton's version of what were known throughout Europe as regimental or Swedish guns, designed to be able to manoeuvre with the infantry and to augment its firepower. The iron 3-pounders were integral to the infantry regiments and were in service from 1639 until 1649. Wemyss replaced the 3-pounders with leather guns in the 1650/51 campaigns. A notable tactical difference was that they were held in the artillery train rather than being integral to infantry regiments. The 12-pounders were a design unique to the Covenanters, whose purpose was to duplicate the role of the much heavier conventional 12-pounders at short range, sacrificing longer range for mobility. The frames were a version of the European organ gun: multiple musket barrels mounted on a simple carriage. They were certainly used by the ASL&C, but there is no evidence of use with other armies, probably because it was such a niche capability and its function had been increasingly usurped by lightweight 3-pounders. Of these weapons, the most innovative was Hamilton's 12-pounder which arguably was a precursor for the 12-pounders developed over the next century as the mainstay of battlefield artillery. Its capability was, however, restricted by technical and scientific limitations of gunnery in the mid-seventeenth century.

¹⁴⁵ Balfour, *Historical Works*, ii, pp. 386-387. Rushworth, *Historical Collections 1618-1648*, p. 1237. Roger Manley, *The History of the Rebellions in England, Scotland, and Ireland*, (London 1691), p. 13.

¹⁴⁶ Edward Walker, *Historical Discourses, upon Several Occasions*, (London 1705), p. 180. Johnston, *Essential Agony*, p. 144, pp. 153-154, p. 158.

¹⁴⁷ CSPD 1651, p. 365, p. 386. Grainger, *Cromwell against the Scots*, p. 182. Bund, *Civil War in Worcestershire*, p. 230.

Hamilton's 12-pounder addressed the contemporary artillery problem of great inaccuracy which increased rapidly with range by evading the issue rather than dealing with it. To understand the scale of the problem of inaccuracy, it is important to balance the apparent erudition of contemporary gunnery textbooks with the reality of combat. The textbooks describe guns engaging targets at their maximum ranges of 1500m or more, while the sources describe guns missing targets as big as the city of Gloucester and Edinburgh Castle at 200m or less. The reality was that artillery of this period, except in unusual circumstances, attacked targets at point blank range, that is at a few hundred metres or less. In the case of siege warfare, guns had to be emplaced at less than 100m if they were to both hit the target and inflict enough damage to batter a breach. Apart from human error, the reasons for the lack of accuracy were a lack of scientific knowledge and a lack of precision and quality in manufacturing guns, canon balls and powder. This resulted in the existence of so many sources of error (from the quality of powder to the effects of gravity) that it was impossible to predict where a ball would land at all but the shortest ranges. Tactical success was frequently prevented by these technical limitations making it difficult to integrate artillery firepower and shock action.

As shown in Tables 6.3 and 6.4 artillery did not make a decisive contribution in the majority of the Covenanters' battles and sieges, although this was neither unusual in this period nor unique to Covenanter armies. When the circumstances were propitious, however, well-handled artillery could create the conditions for decisive action by the infantry or cavalry. Even in sieges, provided the defences were modern and not vulnerable medieval curtain walls, artillery could struggle to batter breaches and was anyway not the only (or the most reliable) means to prosecute such an operation. Marston Moor and Philiphaugh were not won by artillery and Preston, Dunbar, Inverkeithing and Worcester were not lost because of the absence or failings of the artillery alone. Covenanter artillery was as effective as it could be given the contemporary levels of scientific knowledge and technological development, and it was a match for the artillery of any of its allies or enemies until 1648, after which it was clearly in decline.

Conclusion

Overview

The legacy of the Covenanters' military machine was defeat. Relative success in the Bishops' Wars and in the immediate effects of the interventions in Ireland in 1642 and England in 1644 gave credibility to the effectiveness of that military machine. Success in the First Bishops' War may plausibly have been based on a bluff, but it certainly was not the result of the application of superior military capability. Neither can success in the Second War be attributed to the military defeat of the Royalists, except for the operations conducted by Argyll and Monro in Scotland: English politics effectively determined the outcome. In Ulster in 1642 it was the deployment of force, not its employment, which stabilised the situation which was also the case with the ASL&C in the north of England in 1644. Between 1639 and 1644 the Covenanter armies stumbled their way through successive mobilisations and deployments and in each case enjoyed a measure of success thereafter without being tested in high intensity combat operations. This was achieved through a combination of political engagement, potential military threat and, equally importantly, the shortcomings of their enemies. These were not, however, the integrated elements of a well prepared and implemented strategy, but simple actions and outcomes with the latter mainly unforeseen or unpredictable.

1644 saw Covenanter military capability tested for the first time in large scale actions at York, Marston Moor, Tippermuir, Aberdeen and Newcastle with very mixed results. 1645 proved to be more demanding with a sequence of defeats at Inverlochy, Auldearn, Alford and Kilsyth which could have ended the Covenanter regime had it not been for the victory at Philiphaugh. Tippermuir and Aberdeen had highlighted the inherent weakness of the foundations of the military machine: the fencibles left behind after the 1644 mobilisation had clearly not been training regularly for a year or more and they were certainly not Wigram's 'gutful men'.¹ This was confirmed in 1645 when even a stiffening of more experienced troops from England and Ireland could not prevent the descent to the year's nadir at Kilsyth. David Leslie's march north and his victory at Philiphaugh turned the tide and was a significant achievement: that Montrose's force was a shadow of the one he commanded at Kilsyth should not detract from that. There were important small scale victories after 1646, such as the defeats of Macolla at Rhunahaorine (1647) and of Montrose at Carbisdale (1650) which resulted in the former's return to Ireland and the latter's capture and subsequent execution.² These aside, in every major battle after 1646, at Benburb (1646), Preston (1648), Dunbar (1650), Inverkeithing (1651), and Worcester (1651), Scots armies were emphatically defeated in a damning indictment of their military capability. Yet defeat in those five battles was only partly caused by regiments being understrength, underequipped and poorly

¹ Forman, *Reason Why*, pp. 199-204.

² Stevenson, *Alasdair MacColla and the Highland Problem*, pp. 232-236. Cowan, *Montrose*, pp. 286-290

led, as these were problems faced by all contemporary armies at various times. Far more problematic was poor decision making at the higher levels and the pursuit of unattainable objectives.

Covenanter leaders made poor decisions as a result of overconfidence in their military capability and in their godliness as the means to ensure divine intervention. In 1640 the plan was to conduct a rapid advance to seize Newcastle and Durham with their coalfields and associated trade routes before the king's army was fully mustered and to hold them for ransom. Yet the rapid capture of Newcastle and Durham, the subsequent timid Royalist response and the cessation of arms could not have been foreseen, let alone planned for. The Covenanters were spared the consequences of poor decision making as much by the inept conduct of the campaign by the Royalists as any other factor. Success in 1640 was achieved by the very narrowest of margins and owed more to chance than to sound military judgement. Little wonder, then, that Leslie wrote of the capture of Newcastle that 'God hath been very favourable to us'.³ In Ulster, Monro's headlong pursuit of Owen Roe O'Neill in 1646 was prompted by a contempt for his enemy and a fear that he might escape before he could be brought to battle. This overconfidence resulted in Monro's forces not being concentrated at Benburb and the men with him having to fight after some 14 hours of forced marching, including several hours of skirmishing. With Monro having ceded considerable advantage through his overconfidence, it is no coincidence that Benburb was O'Neill's only victory in a set piece battle as an Irish Confederate commander.

At Dunbar military and religious overconfidence led to a bungled transition from a defensive posture to an offensive one, leaving the army vulnerable to precisely the attack which Cromwell launched against it. At Preston and Worcester impossible demands were made of woefully inadequate forces. The ASL&C of 1644, despite its shortcomings, was a far more capable force than either the Engagers' army of 1648 or the Covenanters' of 1651. For the latter two armies to achieve their aims they would have had to conquer England, a task which had been beyond the ASL&C at any point in its existence and clearly, therefore, beyond theirs. When Cromwell's forces (under Lambert) surprised the Covenanters with an amphibious landing in Fife in 1651, their response was to despatch an inadequate force which Lambert promptly attacked and destroyed at Inverkeithing. Whether an example of overconfidence or asking the impossible, the outcome was the same. The disparity in capability was clearly demonstrated in the destruction of the Buchanan and Maclean clan regiments: "gutful men" overwhelmed by far superior forces. Even had the armies in these battles been better trained, equipped and motivated, it is unlikely that they could have overcome the disadvantageous situations to which such poor decision making had condemned them.

³ NRS, *GD75/590*.

The intended foundation of Covenanter military capability was a well-trained fencible population which could be mobilised quickly when required. This could only have been achieved through regular training which was, at various times, duly mandated by parliament, shire committees and burgh councils. The underlying assumption was that men would diligently apply themselves to mastering the required skillsets, even if some would be more willing than others. As early as late 1638, however, there is evidence that such training was unpopular and fines for non-attendance were being imposed from January 1639 onwards. This pattern was repeated across the period. Those who trained most willingly made up the majority of those who marched to war most willingly, significantly reducing any momentum achieved in training delivery once they had gone. Had there been regular and effective training for the previous decade, it is unlikely that the army of the Engagement, could have been described by Turner as ‘raw and undisciplined’ or by Burnet as having ‘not the fifth man [who] could handle pike or musket’.⁴ There was little improvement thereafter with Wariston in 1650 questioning why the army was not training its soldiers and the following year with Robert Baillie asking the same question.⁵ Although there was some continuity of personnel from army to army, particularly in the leadership, it would be wrong to assume that there was one Covenanter army which was mobilised, demobilised and remobilised as required: a new army had to be trained every time. It would be equally false to assume that the policy of conducting regular training of the entire fencible population created a trained reserve to be drawn upon in a crisis: Tippermuir and Kilsyth clearly demonstrated that this was not so. The training plan was over-ambitious and simply did not work in practice: the primary training organisations remained the armies themselves.

The Covenanter mobilisation and recruiting system, far from being an effective part of an efficient military machine, struggled as much as the systems of its allies and enemies. It proved consistently unable to raise the numbers demanded of it which was clearly demonstrated by understrength regiments and by the number of regiments which had to be raised outside the system. This latter included all ten infantry regiments despatched to Ireland in 1642 whose muster records show their mobilisation to have been, numerically for both officers and men, the most effective of the whole period. In addition, the system struggled to provide sufficient equipment and to compel officers to take up their appointments in good time. Given that there were large scale mobilisations in relatively quick succession in 1639, 1640, 1642, 1643 and 1644 it would be logical to assume that performance would have improved with practice even as resources and motivation became more strained, yet the shire committees of war were as inefficient in equipping and turning out their men in 1644 as they had been in 1639. Mobilisation challenges multiplied thereafter with the impact of the increasing schism in Scottish society from 1648. Another key weakness of the system was the lack of any routine provision of reinforcements to make good the attrition suffered

⁴ Turner, *Memoirs*, p. 59. Burnet, *Dukes of Hamilton and Castle-Herald*, p. 450.

⁵ Fleming, *Wariston 1650-1654*, ii, p. 7. Laing, *Baillie*, iii, p. 171.

in the armies. There was a stubborn and misplaced reliance on the ability and willingness of the shire committees to arrest deserters and return them to the army. The performance of the shire committees showed little or no improvement over time, but they continued to do just enough to raise troops.

There was a significant mismatch between ambition and resources which is best seen in the attempt to field effective armies in the three kingdoms simultaneously. In 1645 in particular, Covenanter forces in Scotland could only be maintained (or reconstituted) by cannibalising the armies in Ireland and England. The failure of the leadership in Edinburgh to recognise this early enough led to further poor decision making by recalling too few troops to deal with Montrose. In 1644/45 Montrose and MacColla posed an existential threat to the Covenanters' regime but through either secular or religious hubris they failed to appreciate that until on the very brink of defeat. A further illustration of overambition was the degree to which the Covenanter regime was reliant upon the English Parliament to arm and finance its armies from 1642 onwards. Stewart concluded that 'English funds almost certainly prevented Scottish forces disintegrating through lack of resources' and Stevenson wrote that such 'reliance on promises of money from England was folly'.⁶ Indeed, given that the English Parliament had re-equipped at least 1500 Covenanter cavalry in the months before Kilsyth and Philiphaugh, it is likely that a significant proportion of the cavalry that saved the regime had been armed by the English Parliament. Similarly, just days before Philiphaugh in September 1645 the Scottish commissioners in London were petitioning for the provision of thousands of muskets and pikes not for the ASL&C, but for their troops in Scotland. It is by no means certain that Montrose would have prevailed had this support not been available, but it makes clear how empty the regime's armouries were and how narrowly it escaped defeat. Being unable to access this support after the First English Civil War must also be considered a factor contributing to the fragility of Covenanter military capability and the series of comprehensive defeats from Preston onwards.

There was no structural or procedural element in Covenanter military capability which differed significantly from those of their contemporaries. All armies faced the same problems in recruiting and mobilising, training, equipping, and supplying their armies and all had to deal with the challenge of desertion. The organisation and tactics of artillery, cavalry and infantry differed little and where they did, such as the Covenanters' use of light lancers and aspects of the employment of light artillery, they provided no decisive advantage. Some key battles, such as Benburb (1646), Preston (1648), Dunbar (1650), Inverkeithing (1651) and Worcester (1651), were without doubt lost through poor decision making and judgment on the part of commanders, but could the armies have prevailed had better

⁶ Laura Stewart, *English Funding of the Scottish Armies in England and Ireland 1640-1648*, *The Historical Journal*, 52, 2009, p. 586. Stevenson, *Financing the Cause*, p. 122.

decisions been made? Although battles such as Marston Moor (1644), Newcastle (1644), Auldearn (1645) Kilsyth (1645) Benburb (1646), and Worcester (1651) were, at least in part, hard fought battles on both sides, the most common outcome for the Covenanters was panic, rout and slaughter when their infantry broke. The cavalry, when it was deployed in positions from which it could actually support the infantry, was fitfully effective and generally escaped the battlefield and survived even if occasionally rounded up in the pursuits. The use of artillery by all of the armies is certainly under-reported, other than at sieges. At Boldon Hill (1644), Marston Moor (1644), Tippermuir (1644), Benburb (1646) and Worcester (1651), for example, Covenanter guns were used ineffectually, at Dunbar (1650) they went unused and at others such as Philiphaugh (1645), Preston (1648) and Inverkeithing (1651) they were absent. Revealingly, given how effective they would have been firing case shot against MacColla's "highland charge" there is no record of regimental guns being used in any of the battles against Montrose. The one recorded instance of the effective integration of artillery firepower with shock action is at Newburn in 1640. With the evidence indicating fragile infantry, indifferent cavalry and poorly integrated or absent artillery, it is unlikely that better decision making and leadership alone would have been sufficient to have allowed Covenanter forces to prevail.

Continuity and Change

The Covenanter military machine was firmly based on historical Scottish methodologies, albeit ones that evolved where necessary to reflect changing requirements in Scotland or emerging military practice in Europe. Veterans who had returned throughout the 1630s and the men who had been involved in counter invasion preparations in 1626/27 took the lead in beginning mobilisation activity, not veterans recalled in late 1638 or early 1639. The latter were too few and too late to have had a transformational effect but they added their expertise to the ongoing work. One example of this was the adoption of an adapted version of the Swedish Articles of War and their subsequent amendment to conform far more to previously issued Royal articles. In this they represented change followed by a partial return to continuity. Shire committees and wappenschaws were the means used to begin preparations to mobilise the fencibles in the quarters of the kingdom, all of which represented continuity or an evolution of it. The novelty of the shire committees of war was only in applying a name to the meetings already being held by the nobility and gentry to deal with important issues, including those specifically convened by the JPs in 1627. The challenges faced by the committees may have been significantly more challenging from 1639 onwards, but the methodology used to meet those challenges was largely traditional. The initial intention to mobilise quarters of the kingdom was modernised to be the mobilisation of the fourth man, but the wider recruiting and mobilising system was recognisably Scottish. The adoption of regimental structures was a continuation of a process begun when Morton's regiment was raised in 1627, but organising the whole fencible population into regiments to enable routine training was entirely new although there were echoes

of the medieval Scottish *Communis Exercitus*. The manner in which that training goal was to be achieved was based on the well-known process of drillmasters training a pool of new instructors and using routine musters for training.

The aspiration to continue regularly training the fencible population after the fourth or eighth man had deployed to the army was an innovation, albeit overambitious and poorly achieved. The units which men were being trained to join represented a mix of continuity and change and evolved during the various wars. Alexander Hamilton, back in Britain since 1635, was an agent of change both for the use of artillery at the tactical level and the design and manufacture of lightweight guns. His successor, James Wemyss, re-adopted more traditional tactics by concentrating lightweight guns in the artillery train but also brought change in the shape of his redesigned leather cannon. Both men were consistent in the organisation of artillery into the traditional categories of lightweight, field and siege artillery. The initial organisation of cavalry was as traditional troops, although this changed in 1643 from when the bulk of the cavalry was organised as regiments. The integration of dragoons either permanently or temporarily with cavalry reflected the adoption of the latest European tactics as a more effective way of augmenting cavalry firepower than providing them with commanded musketeers. Whatever the cavalry's organisation, units of gentlemen volunteers were raised outside the main mobilisation system adding another element of continuity. Infantry organisation was simply the continued evolution of the regimental structure already adopted, although there were some interesting experiments such as Monro's and Montgomery's regiments in the Bishops' Wars. The evidence shows that the Covenanter military machine was based on existing Scottish methodologies which evolved or were deliberately adapted to reflect changing circumstances. While the adoption of best practice must inevitably reflect some European influence, this does not demonstrate the wholesale adoption of either Swedish or other European systems.

Vectors for European Influence

Even the most casual comparison of military activity in Europe and the British Isles in the middle of the seventeenth century shows much commonality of practice. This is not surprising given the circulation of ideas in Europe in other areas such as architecture, the arts and science. The most obvious vector for the transmission of such ideas was men of military experience communicating by writing and travelling, an example being Monro who spent several years in Scotland in the 1630s during which time he wrote his book, *Expedition*.⁷ But this group is not restricted simply to the veterans recalled by the Covenanters before the First Bishops' War. There were also veterans who returned permanently or temporarily (on leave, in recruiting parties or as drillmasters) in the 1620s and 1630s and men who returned after the Bishops' Wars. Alexander Hamilton returned to Britain in the mid-1630s and had an undoubted influence

⁷ SSNE Database, 94. Stevenson, *Scottish Covenanters and Irish Confederates*, p. 80.

of the development and use of Scottish artillery. David Leslie did not begin to make his impact with cavalry until 1643 when regimental structures were adopted. Given that he routinely integrated dragoons into his regiment or troop, he may also have been the vector for the wider adoption of them as an integral part of cavalry capability in the ASL&C.

Men wrote to family and friends, passed on broadsheets and drill books and some went to Europe for a military education or on a 'Grand Tour' which could include service as a gentlemen volunteer on campaign. That there was such transmission of information is seen in the proliferation and similarity of military text books during this period including several published in Scotland. Merchant shipping and coastal burghs were armed with artillery for defence, which differed only in the carriages on which the guns were mounted. This maritime community, particularly the merchantmen plying their trade with Europe, must have exposed Scotsmen to new ideas, both socially and professionally. The boundary between Scotland and the rest of Europe was sufficiently porous for the latest military ideas to have passed through it creating a reservoir of knowledge before 1639.

Consent Compliance and Coercion

Despite numerous difficulties, the Covenanters raised large numbers of men over the course of more than a decade, but simple numbers do not equate to capability. Although men must be organised, trained, equipped and effectively led if what would otherwise be an armed mob is to be turned into an army, this is not enough. This was clearly Napoleon's point when he observed that three quarters of the business of war concerns intangibles such as morale, courage and motivation leaving only a quarter for physical issues such as numbers, equipment and training.⁸ Without a consenting core, Covenanter armies could not have been effective forces. The consenting core consisted of the volunteers, including the veterans of European wars and the men who became veterans over the course of the civil wars. Their importance lay in their ability to influence the compliant by setting an example, to coerce the unwilling as necessary and in their willingness simply to stay the course. The number of men who deserted, the lack of enthusiasm in local communities to arrest and return such deserters to the army, and the number of officers and men who went home legitimately having been granted a furlough but who simply did not return, clearly indicates that the consenting core was in the minority. The balance between consenting, compliant and coerced men in an army was important because it did much to determine its fighting quality. If there were too few consenting men in any given regiment, then that unit would have been unreliable and even fragile in battle. Such indeed was the case with the Fife regiments at Kilsyth which panicked and fled before they were even committed to battle and the southern levies which disbanded and fled on receiving the news of that defeat. The evidence makes clear that there were simply not enough of Wigram's 'gutful men' or

⁸ Henri Plon, *Correspondance de Napoléon 1er*, (Paris 1865), xvii, p. 472.

Stevenson's men with a 'real zeal for fighting', to match the numbers which would have been needed to achieve the Covenanters' overambitious goals.⁹

There was a general decline in consent over the decade and a sustained attempt to increase the use of coercive measures. That attempt was made more difficult when consent in the community declined, because so too did the willingness to enact coercive measures. Such attitudes also undermined training, the effectiveness of which was reduced once the majority of the consenting men deployed as the fourth man. It is clear that lack of consent was a major factor in disrupting the levies for Ulster in 1642 and for the Engagement in 1648. In the former case the shires effectively refused to raise men at all and in the latter, the reported strength of the army crossing the border amounted to 80% of the cavalry levy and only 28% of the infantry levy.¹⁰ Changes in the relationships between the state, the army, the people and the Kirk changed the balance between those who consented, those who were compliant and those who had to be coerced. This is most clearly seen in their increasingly fractious and complex relationships after 1647: there was a collapse in active consent, an increase in grudging compliance, little willingness to coerce and no tolerance for being coerced. This meant that Scotland's potential to wage war effectively was seriously undermined and by 1651 largely dissipated. This was a major factor in the failure of Covenanter military capability from 1648 which in turn led to comprehensive defeat.

Local Solutions vs National Military Machine

The mobilisation direction given to the shires by the Tables in late 1638 or early 1639 contained much specific guidance, but very little of it was prescriptive and for most practical purposes the shires were left to their own devices to achieve the stated aims. Even when later Acts of Parliament became much more detailed, the shires were given considerable discretion about how they achieved the requirements. This included the regularity with which shire committees met, authority to decide how to sub-divide the shire if necessary and how to select individuals to meet the shire's quota. This was therefore intended to be a system of central direction and almost entirely decentralised execution. The Tables, Parliament and the Committee of Estates lacked the means to oversee the shire committees effectively and were therefore at the mercy of the enthusiasm and efficiency of individual committees. The most obvious manifestations of this were shortfalls on levy quotas, late selection of officers and men, tardy arrival at army rendezvous, and poor levels of training among the fencibles once the consenting minority had deployed. With so much unsupervised decision making taken at shire level, and in many cases below that, it was inevitable that output varied significantly and that it was only in the army that standardisation could be imposed as far as

⁹ Stevenson, *Alasdair MacColla and the Highland Problem*, p. 127.

¹⁰ *RPCS 1638-1643*, pp. 523-524. *Concerning the Advance of the Scots Army*, 1648. RPS, 1648/3/104.

that was possible. From such evidence, it is clear that the Covenanters' military machine was really a fairly loose franchise rather than an efficient and integrated collective effort.

Another aspect which undermines any idea of a truly centrally driven machine generating military capability is that it was the shires and burghs which had to find the resources to make it happen. In every shire the primary driver for resources was manpower. Firstly there was the requirement to select, equip (including cavalry mounts and baggage animals) and train the number of men in their allocated quotas and secondly to organise, equip and train the remaining fencible population. In theory the shire quotas were based on the manpower figures provided by the shires themselves, but from 1643 until December 1650 (with one exception in 1648) the shires' levy quotas were based on the 1643 figures. The quotas for baggage horses and draught animals for the regimental guns were also determined by the number of men being levied making them equally unrelated to the resources available. Horses and men for the artillery train were levied separately and there are examples of confusion about whether the men in particular were included in the main shire levy quota or were in addition to it. That being so, these requirements were not as well coordinated as they could have been and it was incumbent on the shire committees to solve the problems or to seek arbitration from Edinburgh where they could not do so. Parliament had to resort to coercive measures to try to make its system work, but the evidence is clear that they struggled to impose themselves on the shires and burghs. The military machine which generated Covenanter capability was decentralised and relied on local effort to make it work once overall direction was sent out from the centre. Fractional and inefficient though it was, it functioned well enough to raise multiple armies over more than a decade, although they were of varying quality. Its weakness was not the cause of the almost unbroken run of battlefield defeats from late 1644, but it was very much a contributory factor.

Areas for Further Research

A considerable amount of research was done for this thesis on the subject of consent, compliance and coercion. The word count could not support the several chapters which this amounted to, which is why the topic is considered as a theme across the thesis where appropriate. As noted, this research modified one of Clausewitz's triads, considering the relationship between the Kirk, the state, the army, and the people to determine the Covenanter's ability to harness the nation's potential to wage war. There is considerable evidence available which demonstrates the changing nature of this relationship and its effect on capability. A comparison was made with the equivalent challenges encountered by other armies, which revealed striking similarities. As noted in this thesis, the balance of consenting, compliant and coerced men in an army did much to determine its fighting capability and further study in this area would add to the understanding of the performance of Covenanter armies.

During the Wars of the Three Kingdoms the nature of the deployments of Scottish armies changed significantly. Until 1639 they were generally short and local and even those which lasted longer and were further afield were within Scotland. From 1640, however, deployments were of increased length and at greater distances from the soldiers' home shires, with the majority being beyond Scotland's borders. Amongst other things, this directly affected the difficulty and complexity of the logistics needed to sustain the armies and significantly extended the required length of men's service. As examples, in 1639 the main army at Duns Law could receive its basic logistic support from the shires and presbyteries in its immediate vicinity, but by 1644 there were separate armies in England, Ireland and Scotland which presented a far greater logistical challenge. An analysis of how logistic support developed in response to widely varying circumstances between 1639 and 1651 would be a major addition to the scholarship. Similarly, the required length of service changed significantly and would have added friction to the mobilisation process and increased levels of desertion thereafter. In 1639 length of service could be measured in months, if not weeks or days and the Articles of War included a provision for being released from service. From 1642 the length of service (except for local commitments) was open ended and measured in years. The Articles of War issued from 1640 onwards did not contain the provision for release, underlining the change in approach. Analysis of these changes in the context of the levels of consent, compliance and coercion would add considerable nuance to the understanding of Covenanter military capability.

There is much in the historiography concerning the reputation (and by extension of the perceived quality) of the Covenanters' forces. Most of the scholarship concerning the Bishops' Wars presents a very positive picture of the Covenanters. Only a minority follow Stevenson's lead in believing that Covenanter military capability in 1639 was, in fact, a bluff.¹¹ The narrative is then very much one of decline from late 1644 onwards, and while this is very much reflected in primary sources, the assessments concerning the Bishops' Wars are not. For both Bishops' Wars contemporary assessments are initially positive about the Covenanters' forces but become increasingly negative and disparaging. In 1639 the change became pronounced as Royalist commanders had increased contact with their enemy and in 1640 the change occurred after the panic caused by the fall of Newcastle subsided. Research into this area would add considerably to the understanding of the Bishops' Wars and would provide more balance between the primary and secondary sources' assessments.

¹¹ Stevenson, *Revolution*, pp. 145-146. Fissel, *Bishops' Wars*, pp. 28-38, p. 290. Wheeler, *Irish and British Wars*, p. 23. Reid, *Crown, Covenant and Cromwell*, p. 62.

Aspects of the social and cultural (and in many cases, physical) separation of the highlands and islands (Scottish Gaeldom) from the lowlands has been examined in the historiography, but scholarly analysis of the military dimension, specifically mobilisation, is underdeveloped.¹² In theory, the Covenanters' mobilisation system applied equally to both regions, but while there was some commonality, such as committees of war, there was also significant divergence in practice.¹³ This divergence varied between the western highlands and isles and the northern highland shires but was significant in both cases. Argyll received commissions of fire and sword in 1640 and 1644 which granted him considerable autonomy in military affairs, including mobilising troops as he saw fit.¹⁴ The northern shires were part of the fourth quarter of the kingdom as described by the Covenanters in 1639: Ross, Sutherland, Caithness, Orkney and Shetland and parts of Inverness, Aberdeen and Banff and Moray.¹⁵ The more northerly shires were mostly insulated from all but the local effects of the Bishops' Wars and to a greater extent from Montrose and MacColla's campaigns simply because of their remoteness.¹⁶ They were not mobilised as part of the ASL&C in 1643 and when regiments were levied according to the Act of February 1644 their martial records were both chequered and local.¹⁷ It was not until the levies of 1650 and 1651 that the northern shires were given more demanding quotas. In 1650, for the first time parliament nominated ten 'Colonells of the Clans in the Iles and Heighelands' and seven colonels were appointed to raise regiments not from geographical areas, but from specific clans.¹⁸ Analysis of highland mobilisations will reveal a contrasting picture to that of the lowlands, which will significantly add to the understanding of Covenanter military capability.

Examination of the Covenanters' mobilisation in Scotland in 1638/39 and that of the Royalists in England shows that they were remarkably similar. North of the border the fencibles were audited, while south of it the count was of the 'able men', in both cases of men between the ages of 16 and 60. Musters, training and purchase of arms and equipment all followed patterns far more similar than much of the historiography describes. There is more evidence concerning the recall of Royalist veterans from Europe and their subsequent employment than there is for their Covenanter equivalents. The return of Royalist veterans is noted in the historiography, but the emphasis placed on their importance does not compare to that placed on Covenanter veterans. A detailed and direct comparison of Royalist and Covenanter mobilisation timelines in 1638/39 is likely to change the existing historiographical narrative.

¹² Furgol, *Northern Highland Covenanter Clans*. Allan Kennedy, *A Heavy Yock Upon Their Necks': Covenanting Government in The Northern Highlands, 1638–1651*, JSHS, 2010, pp. 93–122. Macinnes Allan, *Clanship Commerce and the House of Stuart 1603–1788*, (Edinburgh 2021). Theiss Sherilynn, *Western Highlands and Isles, 1616–1649*, PhD Thesis, University of Edinburgh, 2007.

¹³ RPS, 1643/6/91. Stevenson, *Revolution*, p. 29.

¹⁴ RPS, 1644/6/158, 1641/8/175.

¹⁵ NRS, GD16/52/19.

¹⁶ Kennedy, *Heavy Yock*, p. 105.

¹⁷ *Instructions sent be the Committee of the Estates of Parliament* (Edinburgh 24 November 1643), p. 4. RPS, 1644/1/67. Stevenson, *Revolution*, p. 295. Kennedy, *Heavy Yock*, p. 96.

¹⁸ Balfour, *Historical Works*, iv, pp. 210–212. RPS A1650/11/16.

As discussed in Chapter 6, generals of artillery Alexander Hamiton and James Wemyss played key roles in determining the effectiveness of the Covenanter artillery. A comparison of their timelines, both in Europe and during the civil wars, with a number of their peers would be instructive in providing a further means of assessing that effectiveness. As examples, the Walloons Sir Bernard de Gomme and Peter Manteau Van Dalem, the Frenchman Bartholomew de la Roche and the German Joachim Hane who all served during the First English Civil War would provide useful case studies in this respect. This would also allow a wider comparison of the effectiveness of Covenanter, Royalist and Parliamentary artillery capability, which is a gap in the historiography.

Conclusion

The foundation of the positive reputation of the Covenanter military machine was their success in the first 11 days of the Second Bishops' War. Between 20 and 30 August 1640 the king's forces were caught off guard by the invasion of England, they were defeated at Newburn and they abandoned Newcastle and Durham without a fight. The absolute shock which resulted may be seen in the English Privy Council immediately ordering preparations to be made to put London into a state of defence. Secretary of State Windebank's alarm was even greater: he recommended to the king that 'Portsmouth should be prepared as a place of retreat, in case of the worst'. Robert Sydney, 2nd earl of Leicester was more sceptical, however, when he was informed that the Covenanters could be in London before the end of September. He wrote in reply that 'methinks it is strange, that the Scotts, who were so contemptible [...] should now be grown so formidable', although he did not challenge the assertion.¹⁹ Despite the earl of Leicester's musing, however, this dramatic success bestowed upon the Covenanter army such a formidable reputation that it lasted, in many minds, until 1644. When the Covenanters invaded England in January 1644, the assumption on both sides of the border was that the war was as good as won 'once the Scotts had past Tweed'.²⁰ It was an expectation which quickly soured, replaced by criticism that the Covenanter 'armie, after two moneths abode in England, had done so little; that they had left the Siege of Newcastle; that when the enemie came to their quarters, they let them go without fighting'.²¹ This judgment reflects a considerable change in terms of perception, but not a change in terms of actual capability which was as flawed in 1644 as it had been in 1640.

This reputation was based on an overestimation of Covenanter military capability: until mid-1644 it had not yet been subjected to any meaningful battlefield test. The first major tests were at York, Marston Moor and Newcastle. The tests were passed but success could not mask weaknesses such as

¹⁹ *CSPD 1640*, pp. 652-653. Cox, Ogle, *Clarendon State Papers*, i, p. 204. Arthur Collins, *Letters and memorials of State*, (London 1746), ii, pp. 658-659.

²⁰ Laing, *Baillie*, ii, p. 156.

²¹ Laing, *Baillie*, ii, p. 156.

desertion, absent officers and reliance on the English Parliament for weapons, powder and shot. A more searching examination of that capability began when Montrose returned to Scotland in 1644: for over a year the Covenanters had simultaneously to field three major armies in three separate theatres of operation (England, Scotland and Ireland). This stretched their resources to breaking point. Insufficient force was concentrated against Montrose to defeat him before Philiphaugh, yet enough troops were withdrawn from Leven in England and Monro in Ireland to reduce their operational effectiveness. Of the three wars being fought, only one, the war against Montrose and MacColla presented an existential threat to the Covenanter regime. The ASL&C could not have won the first English Civil War by itself, but the mere presence of Leven and his army meant that the king could not win it either. Monro's army similarly could not win the war in Ireland on its own, but its presence changed the balance of power. Poor central decision making at the strategic level ensured that all three armies lacked the resources to ensure their freedom of action, thus limiting what they could achieve. The most glaring example of this was consistently committing too little against Montrose which finally made it necessary to emasculate the ASL&C by stripping it of its cavalry after Kilsyth.

By 1648 resources no longer had to be divided between three field armies, but continued and worsening divisions in Scottish society ensured that they could not be concentrated in a single powerful force. This problem was compounded by the English Parliament and then the Commonwealth becoming increasingly able to focus on Scotland alone, albeit that they suffered their own divisions and internal conflicts. Both sides excluded men or men excluded themselves from the pools of available manpower, but given how much smaller Scotland's pool was, such exclusions were significantly more damaging than those of the Commonwealth of England. Simply mobilising a greater proportion of the available men could not compensate for the loss of veterans and other well-motivated, consenting men and this was reflected in the adoption, initially, of a very cautious strategy in 1650. The contrast between the Covenanters' plans of 1639/40 and 1650 could not have been starker. In the Bishops' Wars, whatever the actual quality of the armies, the Covenanters were confident and aggressive, marching to the border to challenge the king in 1639 and invading England in 1640. In July 1650 when Cromwell crossed the border he faced a scorched earth policy and an army which initially refused battle, staying firmly behind extensive defensive works and natural obstacles. The contrast in plans did not merely reflect a deterioration in confidence and capability on the part of the Covenanters, but also the relative improvement in the quality of the English Parliament's forces.

Except when there is an existential threat, the resources made available to an army should determine the scale and nature of the objectives which it is given, although history abounds with

examples where this was not so. The Covenanters not only committed armies to campaigns with insufficient resources, but they also committed them without clearly defined and achievable objectives. In 1639 the only discernible military aim (after securing Scotland against internal Royalist opposition) was to defend the coasts and border until the king gave up. The latter was a task which Alexander Leslie himself did not believe could be accomplished with the available forces, but fortunately the king lacked the necessary resolution to act decisively. In 1640, after again securing Scotland, the military objective was to capture Newcastle and Durham along with their associated coal fields and trade links, and hold them for ransom, a gamble which paid off only because of inept opposition. The treaties which saw Covenanter armies deployed to Ireland in 1642 and to England in 1644 did not contain a single military objective, suggesting that they were deployed without any meaningful analysis of how they should be employed. An Act of Parliament of 18 June 1644 detailing Callendar's tasks in support of the ASL&C did include specific military tasks, but it was far more confusing than it was helpful. The armies which invaded England in 1648 and 1651 had no credible military objective which would achieve the political goals except the conquest of England, which was clearly beyond their power, even allowing for potential support from English Royalists. By 1651 Covenanter military capability had been exhausted in the pursuit of overambitious objectives which it lacked the resources to achieve. Clarendon's description of David Leslie at Worcester as 'dispirited and confounded' could also have described the state of the Covenanter military machine in 1651.

Although not seriously tested in battle until 1644, other elements of the Covenanters' military capability were sorely tested from the outset. The training regime only functioned on the most basic level, providing individuals and small groups with basic skills, not trained regiments and reserves. While larger numbers may well have been assembled monthly and the activity dubbed regimental training, there were too many variables for this to have been effective: daylight hours, agricultural cycles, inconsistent attendance, burgh exemptions, distances to and from the rendezvous, availability of weapons, proficiency of the drillmasters and the enthusiasm of the multitude would all have affected the training outcome. Troops were trained once they joined the army, making the underlying assumption of the training regime that the whole fencible population was prepared and ready to be called out in an emergency wishful thinking. Similarly, the mobilisation system was barely fit for purpose, being (inter alia) at the mercy of the performance of individual shire committees, albeit that they were facing new and daunting challenges. That this was so may be seen from the frequent criticism of those committees, the consistent shortfall in numbers levied and the fact that regiments had to be raised outside the system. The provision of sufficient weapons was also a challenge, even while being supplied by the English Parliament, a fact that undermined both training and mobilisation. It was an imperfect system very much at the mercy of the enthusiasm of those to whom tasks were delegated. Nevertheless, it functioned well enough to repeatedly

raise tens of thousands of men over the course of more than a decade, which provided the raw material from which armies of varying robustness and effectiveness were forged.

It appears to be counter-intuitive that so flawed a military machine could stay in the fight for so long before being decisively defeated, yet closer analysis shows that in their first six years the Covenanters fought no major battles at all. The low intensity operations and small scale actions in which they were successful were well within the various armies' capabilities. The war in Ireland was not one of manoeuvre and battles by large armies and when one did occur, Benburb, it was the Covenanters who were defeated and they only survived in Ulster because O'Neill could not exploit his victory for political reasons. In England there was far more work for the ASL&C from 1644 but acting as part of an allied force and constrained by lack of resources and concerns over Montrose's campaign, the army did not fight in most of the major battles and sieges which took place. In Scotland, Montrose and MacColla with a polyglot force defeated army after army and effectively re-took Scotland for the king, only for Montrose's much diminished force to be surprised and defeated by David Leslie at Philiphaugh.

Otherwise, as Hew Strachan noted, 'when Scottish soldiers faced English troops, they did not – with the exception of Marston Moor in 1644 – do well'. Strachan is being generous in citing Marston Moor given that half of the army broke and ran.²² Indeed, from Philiphaugh onwards, the Covenanters lost every major battle they fought. They enjoyed some success, however, the small scale but important actions to defeat MacColla at Rhunahaorine and Montrose at Carbisdale and in frustrating and harassing Cromwell in the 1650 campaign, although that ended with the defeat at Dunbar. From the point where the Covenanters had to fight battles rather than skirmishes and had to fight them against armies whose quality was much improved, their military machine was exposed as fragile and ultimately ineffective. The Covenanters believed that their initial successes had been the result of 'gods providence' as Campbell of Glencarradale put it in 1640, with Alexander Leslie believing that 'God hath been very favourable to us' by delivering Newcastle into their hands.²³ In 1642 Leven asserted that the army being raised for Ireland was the 'best armie in Cristendome', and in 1643 he boasted that the ASL&C would drive the Catholics out of England, establish Protestantism in France, and drive the antichrist out of Rome itself.²⁴ They would have been better served by recalling the Book of Proverbs: 'pride goes before destruction and a haughty spirit before a fall'.

²² Hew Strachan, *Scotland's Military Identity*, Scottish Historical Review, October 2006, p. 317.

²³ NRS, GD112/39/81/7, GD75/590. Terry, *Alexander Leslie*, p. 166.

²⁴ JG Fotheringham, *The Diplomatic Correspondence of Jean de Montreuil and the Brothers de Bellievre*, (Edinburgh 1899), ii, p. 556.

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