Olaf van Nimwegen

The Dutch Army and the Military Revolutions (1588-1688)

Since the 1950s Michael Roberts’ idea of a military revolution between 1560-1660 has become a common feature of all military studies dealing with the early modern period, and this seems to be particularly the case in the English speaking world. Roberts argued that the introduction of firearms led to new tactics. The complexities of the new way of fighting required stricter discipline and a higher level of training. Soldiers became expensive articles to be retained in peacetime. The development of standing armies required higher taxes, and hence the creation of a governmental apparatus to effect this. "The transformation in the scale of war led inevitably to an increase in the authority of the state. (...) This development, and the new style of warfare itself, called for new administrative methods and standards; and the new administration was from the beginning centralized and royal." Further army growth was now possible, increasing the scale of war and the impact on society.¹ However, although Roberts and subsequently Geoffrey Parker² made important contributions to the debate concerning the relationship between military change and society at large, it should be remembered that Roberts was elaborating a familiar theme. The notion that the Dutch army reforms instigated by the two Nassau cousins Maurice and William Louis ushered in a new era in military history was already well established. The 1934 PhD thesis by the Dutch military historian J.W. Wijn – Het krijgswezen in den tijd van prins Maurit – scientifically underscored the widely held view that the Dutch army really came into being thanks to the good care of Maurice. And in 1953 the German historian Gerhard Oestreich set out to prove that Maurice and William Louis were not only responsible for the return

of military discipline and drill, but also for the birth of the standing army. The dark era of the soldateska had ended; the refined professional superseded the rough mercenary. In the 1960s and 1970s Werner Hahlweg, partly inspired by and partly in reaction to Roberts and Oestreich, propounded a new view. Already in 1941 Hahlweg had explored in his PhD thesis the close link between the Nassau reforms and the tactics employed by the ancient Greeks and Romans. Hahlweg now maintained that the struggle for survival waged by the Dutch in their revolt against the King of Spain forced them to create an entirely new army. He agreed with Oestreich that the introduction of drill and the emulation of the ancients were an essential part of this transformation, but he no longer saw these as the core of the reform. "Sie [the army reform] ist vielmehr ein totaler Umformungs- oder Schöpfungsvorgang, der mehr oder weniger alle Bereiche des Heeres- und Kriegswesens erfasst." According to Hahlweg the Nassau army reforms consisted of seven parts: 1. systematized drill; 2. a modern general staff; 3. organized military-supply; 4. the moulding of a professional officers corps; 5. practical usage of natural sciences (pyrotechnics); 6. modern command structures ("zahlreiche Befehlshaber, systemisierte Hierarchie"); and finally high mobility and flexibility in tactical manoeuvres. According to Hahlweg all these changes were effectuated in just one decade: between 1590 and 1600. Hahlweg did not eschew superlative terms to explain this phenomenal development. According to him the Dutch war for independence was a "totale[r] Widerstandskrieg", which necessitated the application of all "Kräfte der Nation in einem zeitweiligen Existenzkampf." The importance Hahlweg attributed to the Nassau army reforms seems

---

to vindicate Roberts’ idea of a military revolution in the period 1560-1660. However Hahlweg’s thesis does not fully convince the reader. Firstly, in the last decade of the sixteenth century the vehemence of the Spanish attacks on the Dutch rebels receded because of the Spanish intervention in the French civil war. Secondly, Hahlweg’s insistence that Maurice and William Louis were responsible for the creation of a modern officers corps, the implementation of new command structures and the development of a logistical support system, is not correct. As David Parrott points out in his study on Richelieu’s army (2001) early modern states were unable to affect structural changes, except when forced to do so by external forces. Contrary to Hahlweg’s assertion the Dutch were not fighting a battle for survival in the 1590s. Hahlweg’s idea that an "Existenzkampf" occasioned structural changes is, however, fully applicable on the 1670s. Indeed, the Year of Disaster (1672) saw the birth of the Dutch standing army, the build-up of a modern officer corps and the realization of the magazine system of supply. What then is the importance of the Nassau army reforms? Are they just propaganda as Parrott argues? And should we therefore conclude that the tripartite division of the military revolution put forward by the British historian Jeremy Black is the best alternative to Roberts’ or Parker’s modified version of the military revolution? Black agrees with Parker that the development around 1500 of a new system of fortification – the "trace italienne" – radically changed warfare, but Black dismisses the period 1560-1660 as one of military stagnation. He argues instead that the spectacular growth of European armies beginning in the second half of the seventeenth century, and the impact of new weaponry make the period 1660-1720 a revolutionary one. In 1789 a third military revolution began with the advent of mass armies. Black and Parrott are so eager to dismiss the Roberts thesis that they overlooked an important fact. Granted they are right that between 1560 and 1660 no structural changes are perceptible in the organization of the Dutch and French armies. However, this does not mean it was a period of military stagnation. On the contrary, on a tactical level

---

9 Ibid., 26.
10 Jeremy Black, European warfare 1660-1815, New Haven et al. 1994, pp. 7-20, 32, 89 and 92.
Maurice and William Louis were responsible for reforms that truly merit the term revolutionary. Parker very rightly stresses the enormous importance that is due to the development of a method that made sustainable volley fire possible.\(^{11}\)

Instead of one all embracing military revolution in the period 1560-1660 and the tripartite one offered by Black, I would like to suggest a different approach. Around 1600 Europe witnessed a *tactical* military revolution. Its consequences were limited to the field of tactics because they did not entail structural changes. Armies were recruited and officered as before. In the 1670s and 1680s an *organizational* military revolution took place. The tactical reforms were embedded in this second revolution, which saw the birth of the standing professional army. In France this change was effected by the aspirations of Louis XIV for an universal monarchy. The "Guerre d'Hollande" involved the Dutch in a war which justifies fully Hahlweg’s term "Existenzkampf". The Austrians and from 1688 onwards the English as well were drawn into this fight against the Sun King.

The core of my article will be devoted to discussing the tactical and organizational revolutions from the perspective of the Dutch army. Firstly, I will look at the army under the command of Maurice, William Louis and Frederick Henry. Secondly, I will deal with the organization of the "new" Dutch army under William III.

*The Dutch army from the late 16th to the first half of the seventeenth century*

The army of the States-General was in disarray in the 1580s. The death of William of Orange in 1584 and the irresponsible actions of Governor-General Leicester divided the United Provinces and let to unrest amongst the troops. Mutinies and the betrayal of towns to the Spaniards were the consequence. The dismissal of Leicester and the introduction of the "repartitiestelsel" in 1588 prevented the disintegration of the Dutch forces. The "repartitiestelsel" allotted a portion of the payment of the Dutch troops to each of the member provinces organized in the Union of Utrecht (1579). Holland's share was 64.25 percent (from 1599 to 1792 it was 58 percent), this reflecting the fact that it was the wealthiest and most populous province. Already in December 1586 the Hollander

\(^{11}\) Parker, From the house of Orange to the house of Bush (n. 1), p. 180-181.
under the leadership of Johan van Oldenbarnevelt maintained that the size of the Dutch army should never exceed the funds that the provinces were ready to allot to it. Accordingly, in 1588 the number of Dutch troops was reduced from 29,760 to 20,500 men (paper strength).\textsuperscript{12} The relatively small size of the Dutch army made it imperative to minimize the difference between paper and effective strength, and that the soldiers were trained and disciplined to perfection. Therefore it was a question of the utmost importance whether these aims could be achieved or not.

The organization of the army of the States-General was based on the time-honoured principle that the company commanders were responsible for the upkeep of their units. The government (i.e. the States of the Seven Provinces, the States-General and the Council of State) stipulated the size and composition a company should have, and accordingly paid the captains of foot and horse a monthly lump sum for its upkeep. Muster commissioners were responsible for checking whether the companies complied with regulations. They deducted the pay of missing troops from the specified sum. This might have seemed reasonable, but its effect was negative. Instead of urging the commanders to maintain their units at full strength it forced them to defraud the government, as an anonymous adviser to the States of Holland observed.\textsuperscript{13} The captains were obliged to replace any loss from their own pockets, regardless whether soldiers were killed in action, died of disease or accident or had deserted. Only after they had made good their losses, were captains again entitled to full pay, but it could be months before a new muster had taken place, and the recruits had to be fed in the meantime. The company commanders therefore adopted the habit of leading the muster commissioners by the nose in order to create a fund for the replacement of losses. They did this by hiring people who pretended to belong to the unit during the muster, so-called \textit{passevolanten}. The muster commissioners were fully aware of this fraudulent practice, but they often looked the other way in order not to frustrate military operations. Reductions in pay inevitably led to a reduc-

\textsuperscript{12} Nationaal Archief (NA), The Hague, Collectie Van der Hoop 123, Resolution States-General 4 December 1586.

\textsuperscript{13} NA, Tweede Afdeling, Collectie Goldberg 305, nr. 36, "Corte ... aenwijsinghe deur wat middel datte Ed. Gr. Mo. Heeren Staeten van Holland haer krijghsvolck precysselijcx souden connen betaelen ... 't welck geschiedende souden haer Ed. Gr. Mo. konnen voorcomen de groote frauden die door de capiteynen worden gepleeght".
tion in army size, because the company commanders reacted to this by letting go their most experienced and therefore most expensive soldiers. In July 1605 Ernst Casimir count of Nassau-Dietz, a younger brother of William Louis, prevented the commissioners to muster his force because, as he explained to the field deputies of the States-General, the captains would immediately retaliate by licensing troops, which would reduce the size of his command by 500 men or more. Instead of mustering Maurice and his Nassau cousins therefore preferred a review to get a clear picture of the size of their army. Reviews did not have financial consequences for the captains. Maurice estimated that fraud together with illness and deaths caused by fighting were responsible for a difference of a quarter to a third between paper and effective unit strengths. In June 1604 he observed: "That the army can never be in the field for three or four months without enfeebling a great part of it or one third or quarter of the troops as a result of illness, desertions, deaths and injuries." For the Dutch army in its entirety (troops in garrisons and in the field) the difference between real and paper strength was roughly 25 percent. Although a large gap existed between paper and effective strengths, the Dutch army still compared favourably to the French and Spanish armies. The difference between paper and real strength was in the French case at least a third as Parrott has shown and in the case of Spain a staggering 50 percent, according to Parker. When comparison is made to field armies only, the Dutch did indeed much better than the French. In 1635 King Louis XIII sent an army of 29,000 effective men to the Netherlands. In June just 17,000 men were still with the colours, and at the end of the year no more than 9,000 men remained. Parrott shows that the French crown deliberately ruined its captains in order to be relieved from paying arrears. The French government could

14 NA, Archief van de Staten-Generaal (SG) 4911, Field deputies Henrik van Brienen, J. van Duvenvoorde and Otto Roeck, Rheinberg 29 July 1605.
15 NA, SG 4908, Field deputies Otto Roeck and Ferdinand Heman, in front of Sluis 6 June 1604.
16 Parrott, Richelieu’s army (n. 8), p. 220; Parker, The military revolution (n. 2), p. 45.
17 Het Utrechts Archief (HUA), Utrecht, Archief Staten van Utrecht 654-8, Muster commissioner Jacob Groessen, "Lijste van’t legier’twelck a.o 1635 bij sijne Co.e Ma.t van Vranckrijck d’Hoo. Mo. Heeren Staten-Generael … tot secours gesonden is onder’t beleyd van de heeren mareschals de Chastillon en[de] Brézé", 11 December 1635; Parrott, Richelieu’s army (n. 8), p. 190.
18 Parrott, Richelieu’s army (n. 8), pp. 350-353.
do this because it could easily find other candidates to replace the insolvent captains. The Dutch Republic could not. France had 18 million inhabitants, the Seven Provinces 1.5 to 2 million. It is true that many officers and recruits of the Dutch army came from abroad, but often the financial basis of foreign officers was less solid than that of native-born company commanders. As mentioned before the Dutch government was not prepared to give the captains financial compensation for losses in men and equipment, but the Dutch regents at least tried to pay their troops regularly. They were aided in this endeavour by an institution peculiar to the Dutch army, namely that of the "soliciteurs-militair". These were business-men who concluded contracts with the captains. In return for an agreed monthly sum, they advanced the pay to the company. Often the Provincial States were not able to make payment in full and in time. Thanks to the intermediary role of the "soliciteurs-militair" the soldiers were assured of their pay. This was of the utmost importance, because the troops had to buy foodstuffs themselves. The duties of a "soliciteur-militair" were not limited to advancing money. They also looked after the captain’s interests. When for example there was a dispute with the Council of State over the "closing" of a muster-role. Orders for payment were issued only after a muster-sheet had been approved, i.e. closed.  

The system of the "soliciteurs-militair" gave the Dutch Republic an important advantage over its enemies. However, in the 1630s and 1640s this financial arrangement nearly collapsed under the strain of army growth. The three-year siege of Ostend (1601-1604) forced the Republic to augment its army to 31,000 effective men and in 1608 it numbered 49,000 men. After the end of the Twelve Years’ Truce the army had to be expanded further. In the 1630s and 1640s it numbered 80,000 men on paper and 60,000 effective men. The provincial taxes were not up to this level of spending and the arrears in pay grew accordingly. Heavy borrowing on the money market and the credit advanced by the "soliciteurs-militair" kept the military machine going, but after the conquest of Bois le Ducq in 1629 and Maastricht in 1632 the regents of Holland were getting more and more alarmed about the financial position of their pro-

---

vince. At the same time the "soliciteurs-militair" loudly complained about the enormous sums of money they had already advanced to the troops, and which continued to grow with 600,000 guilders per "here-maand", i.e. a pay-month of 42 days. In January 1643 Holland owed the troops in its pay more than 3 million guilders, and the seven provinces taken together were more than 5 million guilders in arrears. In order to prevent massive bankruptcies and mutinies the States of Holland forced Frederick Henry to reduce the army from 80,000 men to 60,000 men. The Hollanders argued that this would not reduce fighting strength, since a quarter of the troops only existed on paper, and in future the remaining 60,000 effective troops would be paid on time. The reduction took effect on 1 March 1643.20

At a size of 60,000 men the Dutch army was too small to achieve total victory in the Eighty Years’ War. A successful attack on the Spanish Netherlands required the conquest of Antwerp, because only then the major rivers were available for the transport of siege artillery and food-stuffs. Since the battle of Nieuwpoort (1600) both the Spaniards and the Dutch were unwilling to fight another pitched battle. As long as the captains had to replace losses caused by fighting out of their own pockets, Maurice and Frederick Henry were of the opinion that the Republic could not risk a second Nieuwpoort. This created a strategic deadlock. Without victory in the field the siege of Antwerp was out of the question. The care Maurice and Frederick Henry took for the Dutch troops was of course laudable, but militarily speaking it was not always the sound thing to do. Armies were liable to sickness and desertion anyway, and therefore Spinola, the great Spanish commander, was of the opinion that it was sometimes better to see troops slaughtered in the trenches or on the battlefield, than to loose them without putting them to any use.21 The scrupulousness of Maurice and Frederick Henry had moreover the undesired effect that no advantage was to be derived from the great tactical exper-

20 NA, Rijksarchief in Zuid-Holland (RAZH), Archief Staten van Holland (ASH) 1293-II, "Staat van ’t geene aen de naevolgende compagnijljen tot in dese lopende maent van january 1643 noch te betaalen staet" and ASH 76, Resolution SH 8 mei 1643; NA, RAZH, Archief Jacob Cats 32, "Rapport van de heeren Gecommitteert ... op ’t stuk van de mesnage", 11 October 1635.

tise of the Dutch troops.
During the winter of 1594-1595 William Louis developed a method that enabled the infantry to fire continuous volleys. This was a revolutionary moment, because now for the first time firearms could effectively be used in the open field. Historians have attached much importance to William Louis’ letter to Maurice dated 8/18 December 1594. In this letter William Louis explains the "counter-march". Contrary to a wide-held opinion I do not believe that the counter-march was ever actually applied on the battlefield. Based on other sketches of the tactical formation of the Frisian regiment,22 I come to the conclusion that after extensive trials William Louis decided that the counter-march was not practicable. William Louis’ letter gives a clue to own his doubts concerning the counter-march. He writes immediately below the sketch: "So U. E. oersaeck ende occasie mogen velicht becomen om daevor te lachen, dat doch sulx inter parietem ende amicos geschiede."23 The major drawback of the counter-march was its vulnerability to cavalry attack. Each soldier took up a space of 6 feet wide, so that after discharging his weapon he could walk back through the ranks to the rear of the unit. As a result, the formation was too open for hand-to-hand fighting and the pikemen were unable to offer any protection to the soldiers armed with muskets and calivers. In the summer of 1595 William Louis had his Frisian regiment demonstrate a new tactical manoeuvre – called the "conversion" – which was then immediately adopted by Maurice, and introduced in all Dutch infantry regiments. The major advantages of the conversion over the counter-march were its reduced complexity, smaller frontage and greater firing speed. Instead of blocks up to nine soldiers wide, the troops now fought in blocks with a frontage of just five men, and a depth of nine to ten ranks. After firing a volley the soldiers all turned right or left, and then proceeded to the rear of the unit through "streets" between the several blocks. Because the soldiers no longer turned about individually, the space taken up by each musketeer could be reduced to 3 feet. The smaller number of troops per rank, made it moreover possible to speed up the successive volleys. Five men walking behind one another could more

22 Koninklijk Huisarchief, The Hague, A24-IV-H10; Tresoar, Leeuwarden, Fries Stadhouderlijk Archief 701, Tactical formations of 13 July and 5 August 1595.
23 "If you want to joke about it, do it amongst friends." Hahlweg, Heeresreform (n. 4), p. 610.
quickly clear the front of the unit than nine soldiers who individually had to about turn at the same time.

_The Dutch army in the second half of the seventeenth century_

After the Peace of Munster the Dutch army was reduced to a peacetime strength of 29,000 men. Because of its small size the maintenance of its ability to fight was crucial. Unfortunately, this was not the case. Less than a decade after 1648 the Dutch army was in a dismal state. The regiments had been fragmented and many experienced officers had either died or been discharged. The death of Frederick Henry in 1647 and of William II in 1650 had left the Dutch army without a Captain-General of the Union. Lacking a commander-in-chief the Dutch army fell de facto apart into seven provincial armies. Frederick Henry had maintained a high level of discipline among the troops, but after his rash son had used the army to carry out a coup d’état, the Provincial assemblies viewed the armed forces as a political liability. Immediately following the death of William II, the States of Holland abolished the stadtholdership together with the provincial Capitain-Generalship, and took effective control over the nomination of officers and the moving of troops in the pay of Holland. With the exception of Friesland, Groningen and Drenthe, the Provincial States of Gelderland, Zeeland, Utrecht, and Overijssel followed the example of Holland. As a result, the Dutch army was relegated to a force fit only for garrison duty. Until the 1660s most regents were not particularly worried about the condition of their army. The American historian H. H. Rowen rightly observed that John de Witt, Grand Pensionary of Holland from 1653 to 1672, "failed to see ... the importance of a specific army esprit developed over time; for him an army was a relative simple apparatus, something to be bought, used, and dismissed, as the occasion required." Above all De Witt cared for the reconstruction of the navy. The Republic had suffered defeat in the first Anglo-Dutch War (1652-1654). To prevent a repetition the Hollanders started building a powerful battle fleet. They spent millions on big warships. This was

---

necessitated by England threatening Holland’s commerce which was vital for the survival of the Republic. Mending the deficiencies in the Dutch army could wait, they thought. After all, Spain no longer posed a threat and in 1662 the Franco-Dutch alliance, broken in 1648, had been restored. Just three years later, however, in 1665, the Bishop of Munster attacked the Republic in conjuncture with the English King Charles II. The Dutch fleet performed very well, but the Dutch army could hardly take the field. Companies were under strength and the officers inexperienced. In March and June 1665 the Provinces had agreed to augment the Dutch army with 20,000 men, but the implementation of this decision had not been carried through. The lack of a Captain-General of the Union was sorely felt now. It took until the winter of 1665 before the Dutch army was sufficiently up to strength to begin a counter-offensive. In April 1666 shortage of money forced von Galen, the bishop of Munster, to make peace with the Republic. To Johan Maurits of Nassau-Siegen, commander of the Dutch field army in the war with Munster, the lesson to be learned from 1665 was clear: he warned De Witt and the other regents that unless every effort was made to revive the offensive capabilities of the army, the security of the Republic could not be assured.\textsuperscript{27} The truth of this became fully apparent the next year, when Louis XIV marched into the Spanish Netherlands.

In 1667 the French army threatened to overrun the Southern Netherlands. A shockwave went through the Republic. In January 1668 De Witt forged a Triple Alliance with England and Sweden to stop France from devouring the entire Spanish Netherlands. The Dutch navy and army were prepared for military action: 48 warships were fitted out, the army was augmented to 69,000 men, two field-marshal’s were appointed – Johan Maurits of Nassau-Siegen and Paulus Wirtz –, and finally 8,000 men were pulled together for spring manoeuvres. Thanks to the experience gained in the war with Munster and Johan Maurits’ efforts to restore discipline among the rank and file, the Dutch army was in better shape “than she had been in many years”, wrote an observer.\textsuperscript{28} The War of

\textsuperscript{26} J. R. Bruijn, Varend verleden. De Nederlandse oorlogsvloot in de zeventiende en achttiende eeuw 1998, pp. 90-103.

Devolution did not become an European war. On 2 May 1668 the peace of Aix-la-Chapelle was signed. Louis XIV seemed to be content with the conquests his armies had made so far. The regents immediately lost interest in implementing Johan Maurits’ advise to organize the troops in permanent regiments of 14 companies of foot and 6 companies of horse, and to hold annual manoeuvres with the greater part of the Dutch army. The general feeling was: "Het is vreede, het komt’er nu soo nauw niet op aan." The States-General even decided to reduce their army to just 33,000 men. This decision was very unwise for two reasons: firstly, much military expertise gained in the war with Munster was lost again; and secondly, already in July 1669 it was apparent that Louis XIV was preparing to invade the Republic, and that the attack would begin as soon as the French army was ready. During the War of Devolution several short-comings in the French army had become apparent. Louis XIV, together with his secretaries-of-state for war, father and son Le Tellier, redressed these defects. The discrepancy between paper and real strengths was reduced to acceptable levels – about 10 to 20 percent –, Inspector-General Jean Martinet vigorously imposed discipline, and hence forward officers had to obey commands given to them by superior officers regardless their own social status. In the second half of 1670 the new French army overran Lorraine. This operation served a double purpose: it was a "dress-rehearsal" so that remaining shortcomings could be remedied, and new tactics tried; and secondly, it served as a preliminary to Louis XIV’s plans for conquering the remainder of the Spanish Netherlands. From the start, the Sun King wanted to deal the Dutch a knock-out blow. With the Dutch Republic out of the way, the principal obstacle to French ambitions in the Spanish Netherlands, France could

28 NA, RAZH, Archief Johan de Witt (AjdW), Cornelis de Witt, Bergen op Zoom 23 April 1668.
29 "It is peace, it is not so very urgent now". Lieutenant General Johan Dibbetz (1685-1745), Het groot militair woordenboek, Den Haag 1740, prefacer.
30 NA, RAZH, AjdW, Johan Maurits van Nassau-Siegen, Siegen 3 July 1669.
start its attack on its arch-enemy Spain.\footnote{32}

The French conquest of Lorraine alarmed the regents and made them aware that the decision to decrease the Dutch army had not been a wise one. Between December 1670 and June 1672 the Dutch army was increased to 100,000 men on paper, or about 80,000 effectives. Only 22,000 of these were available for field duty, because the greatest part was tight up in garrisons. Louis XIV attacked the Republic with 80,000 men and possibly even 100,000 men.\footnote{33} To this very powerful army must be added the allied forces of the bishop of Munster and the elector of Cologne. The discrepancy in numbers turned the French invasion into a triumphal march. Already on 23 June 1672 the French occupied Utrecht. The Waterline, however, halted further progress. Overijssel, Gelderland and Utrecht were lost to the French and their allies, but Holland, Zeeland, the city of Groningen and Friesland stood their ground. The "Existenzkampf" compelled the Dutch to reform their army. That they succeeded to do this in an astonishing short space of time – about two years – can be attributed to the collaboration between William III, the new Grand Pensionary Gaspar Fagel, and the two Field-Marshals Johan Maurits and Georg Friedrich von Waldeck.

The impending French attack had forced the De Witt faction to appoint the 21-year-old William III commander-in-chief of the Dutch army in February 1672. The collapse of Dutch defences resulted in the murder of John de Witt and the elevation of William III to the stadtholdership of Holland and Zeeland. William III wanted to counter-attack as soon as possible, but the disheartened and weakened army was yet unable to accomplish this aim. Turning the French onslaught was only feasible if three conditions were met: 1. re-establishing self-confidence in the troops; 2. the insurance of regular pay; and 3. financial support for the officers so that they could repair their losses. The third condition constituted a novelty. Of old the Provincial States had been of the opinion that


\footnote{33} NA, RAZH, Familiearchief Van Slingelandt De Vrij Temminck 22, Council of War 5 June 1672.
the company-commanders themselves were responsible for maintaining their units at full strength. The disastrous circumstances prevailing in 1672 forced a change in attitude. During the winter of 1672 and spring of 1673 the States of Holland took a number of decisions that fundamentally changed the relationship between army and state. These decisions affected the Dutch army in its entirety. As a consequence of the French invasion the Dutch army had in effect become the Holland army. The occupation of Gelderland, Overijssel en Utrecht left the troops allocated on these three provinces without pay. The States of Holland decided to take all these troops into their pay until the enemy had been repulsed. The "quote" of Holland in the total army expenses grew from 58 percent to nearly 69 percent.34

During the winter of 1672 the Dutch troops lived from hand to mouth, especially the troops in the former pay of the three occupied provinces. The "solliciteurs-militair" were not keen on serving the company-commanders of these units, because they could not give any security, having lost all their property to the invaders. In 1643 the collapse of army finance had been prevented by a reduction in troop-numbers. In the Year of Disaster that same solution was unthinkable. Every man was needed. Gaspar Fagel devised a new system of payment. All the troops paid by Holland were divided into eight groups, observant with regimental organizations, and then allocated to a director. Each group consisted on average of 63 companies of foot and 15 of horse. The eight directors were obliged to serve all captains, notwithstanding their credit-status. In return they were given the monopoly on paying the troops, received an interest rate of 6.95 percent per year for money advanced to the troops, and moreover they were entitled to a steady monthly compensation for each company they served. It is not clear how long this system functioned, but it is certain that in 1676 33 "solliciteurs-militair" were employed for advancing money to the troops in the pay of Holland. Apparently it had not been possible to limit their number to just eight, probably because of the enormous sums of money involved. The new situation was not disadvantageous for the troops, because the 33 "solliciteurs-militair" could not refuse a captain either.35

The States of Holland also helped the company-commanders directly. In

34 NA, RAZH, Familiearchief Hop 6, Extract resolution SH 20 June 1672.
July 1673 two important measures were taken.\textsuperscript{36} First, officers were reimbursed for expenses resulting from replacing troops killed in action. This was a very important development, because, as said, until that time the captains had had to recruit losses out of their own pockets, forcing them to resort to fraud, and hampering military operations. Maurice and Frederick Henry loathed fighting bloody battles, because great losses would ruin the captains. The arrangement recompensing losses changed this. Within six weeks an army could be ready for battle again. Whereas before that time the Dutch army had to retire to its garrisons after heavy fighting – as was the case after Nieuwpoort – from 1673 onwards the Dutch army could stay in the field and after a short period of recuperation risk another battle. The second important measure entailed that infantry captains whose companies were mustered at 70 rank and file were paid the full complement of 78 men. Troops who died of other causes than fighting (illness or accident) and deserters still had to be replaced by the captains out of their own pockets, but the States did not leave them to their fate in those cases either. The bonus system enabled the company commanders to create a fund out of which these replacements could be paid for. Captains whose companies numbered less than 70 men, however, were not entitled to this bonus, and those whose companies mustered below 60 men, were not only heavily fined, but were moreover dismissed if they were negligent in repairing their losses within a specified period of time.

The rank and file also fared well with the greater involvement of the government. Food and medical help were assured. The troops no longer had to buy their basic foodstuffs, bread, from local bakers, but were provisioned by the firm of Machado and Pereira, "provediteurs-generaal van den Staat". Antonio Alvarez Machado and Jacob Pereira, two Sephardic Jewish merchants, bought rye on the Amsterdam grain market, stocked this in supply depots (magazines), and had part of it milled. From the resulting flour their bakers produced loaves of six pounds each, and car-

\textsuperscript{35} NA, RAZH, Archief Gaspar Fagel 126; Plan for directors "van de betalinge der militie te lande", 1673; NA, RAZH, Archief Gecommitteerde Raden van Holland 3026, Resolution Gecommitteerde Raden van Holland, 13 March 1676.

\textsuperscript{36} Recueil van verscheide placaaten, ordonnantiën, resolutiën, instructiën, ordres en lijsten &c. betreffende de saaken van den oorlog te water en te lande, I (The Hague) no. 9, "Placaat en ordre op het stuk van de monsteringe", promulgated by the States of Holland, 19 July 1673.
ted these to the army. Each soldier was entitled to 1 1/2 pounds of bread per day, so that six pounds sufficed for four days. The bread price was fixed in the bread contract concluded between the Council of State and the "provediteurs" so that the troops were protected against rising food prices. Wounded soldiers received first aid in field hospitals, and were only then sent to the nearest city, resulting in a decline of soldiers who died unnecessarily because of undressed wounds.37

What did the States of Holland gain from these expensive measures? Holland had not acted out of altruism, of course. The financial aid for officers and the improvement of living conditions for the rank and file justified the vigorous prosecution of fraud, and the introduction of ruthless discipline. No one was exempt from harsh punishments any longer, not even colonels. While Gaspar Fagel looked after the financial matters, William III, Waldeck and Johan Maurits concentrated on inculcating the Dutch troops with the proper fighting spirit. In contrast to his ancestors William III did not turn a blind eye to fraud. Fraudulent officers were cashiered, heavily fined, and could even be beheaded. The "High Council of War" also severely punished insubordination: officers lost their rank and had to serve as common soldiers in the Dutch Guards until they had learned to obey; the rank and file had to run the gauntlet or were given lashes. Cowardice in the face of the enemy and looting of the own population were considered offences punishable by death. William III authorized the provost-general to summary execute troops who were caught in flagranti delicto, and units that disgraced themselves on the battlefield were collectively punished by decimation.38 Frederick Henry always spoke of the Dutch troops as his children, and although William III was certainly no Cronus, he was not as concerned for them as his forebears had been. On the contrary, for him troops were expendable because he knew he could make good the losses. The already mentioned financial arrange-

38 HUA, Huisarchief Amerongen 2732, Major General Godard van Reede-Ginkel to his father, Zedigem 11 May 1677; Hollantse Mercurius, Haarlem 1677, p. 46; NA, CvxH 150, Notes by Adriaan van der Hoop, Secretary of the Council of State, concerning the "provoost-generaal van het leger".
ments and the continuous drill ensured this. For Maurice, William Louis and Frederick Henry turning mercenaries into disciplined and outstandingly trained troops had been the goal of their efforts. That the exercise programme developed by them could be used to guarantee a steady influx of recruits for the army, was not realized by them. After 1672 this was self-evident. An anonymous Dutch officer remarked at the start of the eighteenth century: "It is a constant truth that in war-time or in times of recruitment, a fellow can learn to exercise in six to eight weeks and be turned into a good soldier."39 To be fair, the replacement of the matchlock by the flintlock, and the simplification in tactics – fire by ranks instead of the complexities of the conversion – required less training of late-seventeenth century troops than of their forebears around 1600.

The military reforms carried through in the winter of 1672 and first half of 1673 yielded astounding results. The feeling of defeatism and despair was rooted out and replaced by one of defiance. In July 1672 an English pamphleteer had confidently asserted: "In the eye of all humane reason, they [the Dutch] are like to be a sinkting State."40 A year on the only Dutch conquests still in the Sun King’s hands were Grave and Maastricht, and his three allies (Munster, Cologne and England) had deserted him. In the summer of 1673 William III had started his longed for counter-offensive. After a siege of just three days Naarden was retaken, and then William III in conjunction with the Imperial army under Raimondo Montecuccoli captured Bonn. In 1674 30,000 Dutch troops were sent to the Spanish Netherlands, where they fought together with the Spaniards and Imperials. About the same number of troops served there from 1675 to 1678, approximating to 40 percent of total Dutch forces, which can be estimated at 70,000 effective men. On paper the army of the States-General should muster around 80,000 men, so that the difference between official and effective strength amounted to just 15 percent! This low percentage is comparable to that of the French army. Guy Rowlands estimates the difference between real and paper strength of the French forces at 10 to 20 percent.41 After the return of peace in 1678 the Dutch army was reduced to a peace-establishment of 40,000 men. In contrast to

39 NA, CvdH 106, ‘Memorie en reflectie artillery’.
40 The present state and condition of the Low-Countries, London 1672, Library University of Utrecht, Special Collections, S. oct. 3796.
41 Rowlands, The dynastic state (n. 31), p. 171.
1648, however, much care was now taken to ensure that regimental structures were left intact, and that the experience gained during the last war was preserved. 1678 saw the birth of the Dutch standing army. The companies exercised regularly on a regimental level, and were mustered frequently. Musterrolls show that the companies of foot had an effective strength of about 90 percent.\textsuperscript{42}

\textit{Conclusion}

Maurice and William Louis were responsible for a tactical revolution. Volley fire would dominate battlefields all over the world until the late-nineteenth century. Drill and continuous exercise were at the heart of the Nassau reforms. Contrary to Hahlweg’s and Roberts’ assertions, however, Maurice and William Louis did not reform the Dutch army. The organization, financing, and recruiting of the Dutch companies were not altered by them. They and the Provincial States did not recognize the need to do so. Until the second half of the seventeenth century European governments hired troops to fight for them, but caring for the mercenaries they did not regard as their responsibility. The upkeep and recruiting of troops were considered a private matter that only concerned the captains. That this bred fraud, hampered army growth, and put severe limitations on the offensive capabilities of armies, was not realized. From this follows that the reforms of Maurice and William Louis were limited to the tactical sphere, and that instead of Nassau army-reforms we should rather speak of Nassau tactical-reforms.

The French army built-up under Louis XIV and his decision to attack the Dutch Republic caused an organizational military revolution. Between 1672 and 1688 the Dutch army changed from a collection of privately run companies into a standing force officered by people whose livelihood and career depended on government support. The suppression of fraud, the meeting out of severe disciplinary punishments, and the active tracking down and punishing of deserters, deterred officers and men alike. At the same time the offering of financial assistance to company commanders, the compensation for losses in men and material, better logistics, and improved medical facilities, created conditions that enabled

\textsuperscript{42} NA, SG 12548.488.4, Musterrolls, 1684.
the captains to maintain their units to the satisfaction of the government. The difference in real and paper strength dropped from an average of 25 percent to 15 percent. Conditions were now ripe for further army growth. During the War of the Spanish Succession the Dutch Republic would employ an army of more than 100,000 men. The greater war effort had enormous consequences. Government expenditure skyrocketed and losses in human life grew alarmingly. In 1675 and 1676 Holland had to pay on average 17 million guilders per year as her share in the Dutch war effort. In the 1630s and 1640s this had been 10 to 11 million guilders.  

In the battle of Nieuwpoort 1000 Dutch and 3000 Spanish soldiers perished, next to 700 and 600 wounded respectively. Seventy-four years later French casualties in the battle of Seneffe totalled 8000 to 10,000 men; allied losses amounted to 10,000 to 12,000 dead and wounded and possibly even a staggering 15,000. Mont-Cassel (1677) resulted in 3000 dead and 4000 to 5000 wounded on the Dutch side, and 1200 dead and 2000 wounded on the French side. Compared to these bloodbaths the victory won by William at Saint-Denis (1678) was not too dearly bought: the French had suffered 2500 dead and wounded, and the losses of the allies amounted to 3000 officers and men.

The already-mentioned English pamphleteer maintained that the Dutch Republic was lost in the summer of 1672 "if some mighty Providence do not suddenly direct [i.e. avert] these Judgments threatened." As we have seen it was not divine intervention but the reform of the Dutch army that preserved the Republic as a sovereign state. Together the tactical revolution of the 1600s and the organizational revolution carried through between 1672 and 1688 provided the Dutch with the means to hold their own against much more powerful foes.

---

43 NA, CvdH 24, "Ordinaris en extraordinaris inkomen en lasten van Hollandt" 1671-1676.
44 The present state and condition of the Low-Countreis (n. 40).