

**An Army of Never-Ending Strength**  
Reinforcing the Canadians in  
Northwest Europe, 1944–45

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## Introduction

6 JUNE 1944. A day that witnessed the amphibious landing phase of Operation Overlord, the Allied invasion of France. British, Canadian, and American forces pierced German Atlantic Wall defences in five different locations in bitter fighting that lasted most of the morning. By last light on 6 June 1944, the first Canadian formations to invade the continent, the 3rd Canadian Infantry Division and the 2nd Canadian Armoured Brigade, were firmly entrenched in their part of the Allied beachhead. They were the first forces of what would eventually grow into the First Canadian Army, and they had begun what would be a long, costly campaign to liberate northwest Europe, where hostilities concluded with a ceasefire on 5 May 1945.

The Canadian forces' path to eventual victory over the Germans had three distinct phases.<sup>1</sup> The first phase was a bitter campaign of attrition in Normandy, where the Canadian Army prevailed against the strongest German formations. By late August 1944, these enemy forces had been crushed in the Falaise Pocket. The second phase then began with a long pursuit across France that saw the liberation of enemy-held channel ports. This phase concluded with bitter fighting to clear the Scheldt Estuary. They freed the port of Antwerp by November 1944. Following these two costly phases, the Canadian Army assumed defensive positions along the Maas River. It held these static positions from November 1944 to January 1945. The third phase of combat operations began in February. During it, 2nd Canadian Corps reunited with the 1st Canadian Corps, redeployed from Italy. The First Canadian Army now consisted of two complete Canadian corps. Canadian formations within these two corps totalled three infantry divisions, two armoured divisions, two independent armoured brigades, and two army-level artillery groupings.<sup>2</sup> Each of these formations was near full strength in early April 1945, and together they made up the greatest Canadian military force ever assembled in the history of the nation. In the last month of hostilities, this force relentlessly advanced, sweeping aside all opposition.

The Canadian Army had not always achieved this battlefield dominance. Before the German collapse in mid-August 1944, Canadian formations in Normandy faced challenges they had not experienced in Italy in 1943–44. In June, July, and August, they experienced heavy casualties inflicted on them by

a seasoned foe equipped with advanced weapons systems. It was a titanic challenge to overcome attrition in personnel, weapons, and equipment. From 6 June through 23 August, casualties in Normandy totalled 18,444, including 5,021 deaths.<sup>3</sup> These losses were the equivalent of a full-strength infantry division.<sup>4</sup> Vehicles and weapons-systems losses also mounted during the summer of 1944. On 11 June, the 6th Canadian Armoured Regiment (1st Hussars, 6 CAR) had fifty-one of its sixty-one 75 mm Sherman and 17-pounder-gunned Sherman Firefly tanks destroyed, a loss rate of 84 percent.<sup>5</sup> The Canadian Army maintained adequate personnel and equipment levels through rapid replacements, which allowed units to remain operational and achieve battlefield victories. This practice preserved units and a formation's combat power. The Canadian Army could not mount offensive operations if there were not enough soldiers or weapons. Strategy, planning, and tactics would be for naught in the absence of reserve resources with efficient administrative systems to sustain the front-line formations.<sup>6</sup>

This book shows that for most of the Canadian Army's operations in north-west Europe during 1944–45, its three traditional combat arms – infantry, armour, and artillery – were effectively reinforced. Here, *effective reinforcement* is defined as the successful maintenance of units near or at their establishment strengths for vehicles, equipment, and personnel. Reinforcement allowed these units to continue offensive operations despite heavy losses in intense combat. The efficiency of the Canadian Army's personnel- and equipment-reinforcement systems thus allowed it to realize its prime objective: the defeat of the German military by the concentration of superior forces at the decisive points in the theatre.

Historians of the Canadian Army's campaign in Normandy observe that it regularly conducted operations with understrength infantry units.<sup>7</sup> Most critical is the observation of American military historian Russell Hart, who notes the following in his seminal work, *Clash of Arms: How the Allies Won in Normandy*:

The Battle of the Falaise Pocket witnessed the hardest fighting the Canadians had yet encountered as the enemy fought to escape encirclement. By August a growing infantry shortage undermined Canadian combat effectiveness. With only one division in action during June available replacements covered losses, but by mid-July infantry casualties were 80 percent above forecast. By early August, when the infantry deficit reached 1,900, Crerar acknowledged that the replacement situation had become the most serious problem confronting the Canadians. The heavy losses suffered during TOTALIZE and TRACTABLE increased the shortage: on 15 August Canadian formations were short 2,644 riflemen. Manpower

shortages thus sapped Canadian offensive drive at the moment when it was put in the unique position of “bagging” the remnants of two German armies in Normandy.<sup>8</sup>

However, the idea that the Canadian Army regularly utilized understrength infantry units to lead an attack during the start of major set-piece operations in the summer of 1944 is a myth.<sup>9</sup> Rather than being half-strength infantry battalions (regiments) struggling to achieve their objectives with a bare minimum of personnel, attacking units were always at or very near their establishment strengths at the start of major operations. While some challenges occurred during the latter half of August and early September 1944, the reinforcement system still functioned. The issue the Canadian Army faced was that the intensity of combat and the sheer number of losses on a weekly basis simply overwhelmed the replacement system for a period of roughly sixty days. Replacements arrived, but the losses were higher and occurred at a much quicker rate than anticipated. Critics who observe that each infantry battalion was not at 100 percent overlook that the First Canadian Army was taking on a major operational role in late August 1944. It was involved in the destruction of two German armies, these containing the majority of the Nazi’s military strength in occupied France, and suffering heavy casualties in the process daily.<sup>10</sup>

Canadian military historian Terry Copp states: “It is also important to note that the shortage of infantry replacements had an especially adverse effect on the 2nd Division. By 28 July it was short 1,060 infantrymen; and by 20 August it was reporting a deficiency of 1,840 Infantry Other Ranks.”<sup>11</sup> This is the standard view on the Canadian Army’s reinforcement capability in the summer of 1944. But it does not consider that the majority of Canadian infantry units were in tolerable shape and capable of operations that would ensure the defeat of the Wehrmacht. Consider that on 28 July 1944 the Essex Scottish Regiment, one of nine infantry battalions in the 2nd Canadian Infantry Division, forwarded a return of 38 officers and 735 other ranks, 96 percent of its establishment strength.<sup>12</sup> Though battalions were understrength at certain points, their strengths changed on a daily basis. If the performance of the Canadian infantry regiments had not been effective, the Falaise Gap would not have been closed, and the decisive victory over the German forces would not have occurred by 21 August 1944.

Make no mistake, during the late summer of 1944 some Canadian infantry regiments were in poor shape, but this situation was remedied largely by mid-September – before major combat operations in the Scheldt Estuary began in October.<sup>13</sup> But even on 31 August 1944, when the Canadian Army’s infantry

shortage was at its height, the average strength of the twenty-two Canadian infantry battalions was still roughly 77 percent of their establishments. Though reduced, these battalions were still capable of attacking. Considering that these infantry units had just closed the Falaise Gap and were now engaged in high-intensity exploitation operations, their strength returns are indicative of an army at war, not one on the parade ground.<sup>14</sup>

Canada's system of constant reinforcement was in direct contrast to Germany's. Its army suffered continuous losses and was rarely reinforced with new personnel or equipment. The Germans let the strengths of standard infantry formations fall to nothing; they only reinforced a limited number of elite divisions on an ongoing basis. As a result, they had to construct new infantry formations from scratch. Combat formations eventually had to be withdrawn to be reconstituted, re-equipped, and retrained.<sup>15</sup> The Germans did not see the process of constantly reinforcing a division in the field as the most efficient way to maintain a field army's military strength. Often, they allowed near annihilation by attrition to occur before withdrawing a unit for a program of reconstitution. National honour or a unit's history never prevented the destruction of a formation. A recently raised unit with new personnel and equipment would take its place. Because of a lack of reinforcements, corps headquarters perceived German formations as employable tools with a temporary value. This led to their ruthless combat employment by higher command with little regard for their welfare or status.<sup>16</sup> By contrast, during the final year of the war, Canadian divisions were rarely withdrawn from the combat environment and, if so, higher headquarters tasked them with a reserve role near the front line. This constant front-line deployment arguably increased the combat effectiveness of the units within Canadian divisions, as they never ceased operations apart from small breaks.

By offering a detailed statistical analysis of the combat records, this book builds on the existing literature on the Canadian Army's manpower struggles during its last eleven months of operations.<sup>17</sup> Given the lethality and destructive power of modern weapons in 1944–45, an army's ability to rebuild itself was of equal importance to its ability to defeat its enemy. This book, therefore, is as much about the nature of twentieth-century modern warfare as it is about the administrative processes of the Canadian Army.

Detailed statistical studies of the combat records of Canadian units are rare. Operational narratives usually relegate supporting data to limited appendices that are rarely analyzed. The research presented here tracks actual Canadian Army unit strengths and losses and shows how its administrative and logistic

organizations successfully reconstituted units during intense operations. The book presents an overview of the operational record of the division or independent brigade to which each combat unit belonged. Within the historiography of Canadian military engagement during the Second World War, historians typically focus on the regiment or combat arms corps rather than on formations such as divisions or brigades. By including data on larger formations and grouping together statistics on all their component combat arms units, *An Army of Never-Ending Strength* presents a more complete picture. As the greatest military force ever created by the nation of Canada, the First Canadian Army's size, strength, and capability were constantly evolving.

Chapters 1 and 2 outline the personnel reinforcement system and how significant challenges in 1944 were resolved. Chapter 3 examines the equipment replacement system and how it maintained the army's military strength. Devoted to battlefield tactics and equipment, Chapter 4 shows why certain losses in personnel and equipment occurred. Chapters 5 through 9 tell the story of how personnel and equipment were replenished in the field. The Conclusion assesses the Canadian Army's replacement practices for both personnel and equipment and how the performance of these essential functions was critical to victory in 1945.

Although the Canadian Army effectively reinforced its three traditional combat arms, it would be incorrect to state that it did so in the most efficient manner possible. *Effectiveness*, as defined in the larger military spectrum, refers to a group successfully producing an intended mission result. *Efficiency* in the same environment is the practice of achieving a mission while keeping wasted or excessive effort to a minimum. The personnel and administration effort required to attain the army's reinforcement goals were at times excessive. As an example, No. 2 Canadian Base Reinforcement Group (No. 2 CBRG), a main cog in the personnel replacement organization, was militarily effective. When well-supplied and given time to establish routine deliveries, it achieved its goal – the timely distribution of personnel to front-line units.<sup>18</sup> But it was excessively bureaucratic in its operations, which hurt its level of efficiency. The five No. 2 CBRG reinforcement battalions that supplied units at the front were holding units. They were beset by the administrative processes to receive, hold, and dispatch soldiers, all of which took time. The skills of soldiers held in these battalions eroded the longer they stayed. To move a replacement soldier from the 21st Army Group reception camp in northwest Europe to his regiment took seven administrative moves between organizations, and two of the destinations were in No. 2 CBRG itself.

It would have been more efficient if each No. 2 CBRG battalion were specialized for a certain trade and their number reduced. Replacements could have been kept nearby in large camp environments where their combat skills could be maintained. Also, the number of administrative moves should have been reduced. This is exactly what occurred in late 1944, when the personnel reinforcement system was reorganized to focus on quickly supplying infantry regiments with replacements.<sup>19</sup> But during the summer and fall of 1944, needless time and resources were spent ensuring that new personnel reached units on a routine schedule.

During the summer of 1944, the delivery of heavy armoured fighting vehicles could also have been more efficient. Operations within the 25th Canadian Armoured Delivery Regiment (CADR) were complicated and overly administrative. Its squadrons duplicated the mechanical and kit inspection process on armoured vehicles at each stop in the delivery process until an “A” vehicle joined a unit.<sup>20</sup> When this vehicle reached the front, it was then checked a final time by the soldiers operating it. The duplication was needless. Again, once the machine was rolling and well supplied with vehicles, large numbers of replacements reached regiments on a regular basis.

As these two examples show, the Canadian Army had an extensive administrative component within its personnel and equipment replacement organizations. Once these organizations were established and well supplied, they achieved their main goals in a satisfactory manner. But they were not streamlined organizations.

Was there a distinct administrative mentality within the Canadian Army that focused on maintaining the strength of combat arms units at the front? The Canadian Army’s approach to the replacement of personnel and equipment was similar to that of Britain and the United States. As was the case in their armies, sophisticated and bureaucratic systems ensured that reinforcements and new equipment reached units in the field. From 1939 to 1943, the Canadian Army was not committed to combat apart from two short-lived operations in late 1941 and mid-1942. This nonoperational period led to the establishment of an extensive administrative and training base in England. Administrative structures and systems increased in size and sophistication within what amounted to a peacetime training environment.<sup>21</sup>

Although the Canadian Army took on a major combat role in Italy in 1943–44, it did so with a limited expeditionary force that consisted initially of one infantry division and one independent armoured brigade. Because of the limited number of Canadian formations being deployed, in comparison to the US and British forces, the army could give specialized attention to its personnel and equipment

replacement needs. The force eventually became a complete corps of two divisions and one independent brigade, but its losses were still manageable due to breaks in operations. After gaining experience in Sicily and Italy, utilizing existing repair and reinforcement processes already present in the British Army, the army had systems in place for the D-Day landings and beyond that were effective and battle-tested.

The Canadian Army's battlefield doctrine was, for necessary reasons, based on British military philosophy, concepts, and operational art. To attain combat objectives, it focused on the use of equipment and firepower rather than the expenditure of human capital. The Anglo-Canadian emphasis on use of military technology was intended to limit friendly casualties and, simultaneously, cause extreme attrition to occur within the enemy's ranks.<sup>22</sup> This was a "compassionate attritionist" approach. Because of the limited number of Canadian formations engaged in battle, deployed front-line divisions were lavishly equipped with a complete establishment of the latest weapons and equipment in the Commonwealth arsenal. Losses in these inventories were rapidly made good. This allowed the formations to fully utilize a large percentage of their weapons systems on an ongoing basis, continually hammering away at the enemy with a focus on his continued attrition.

It should be mentioned that while Canada suffered severe personnel losses during the disasters at Hong Kong in 1941 and Dieppe in 1942, it never endured the kind of military disasters that befell certain German armies on the eastern front from 1941 to 1945. The possibility that a unit would be destroyed was an eventuality the Canadian Army refused to accept. The reality of total war, practised on a grand scale by nations literally fighting for their national survival, was not a challenge that the Canadian military faced in Europe. It was never involved in a desperate do-or-die struggle with a superior foe in the last year of the war. The Normandy lodgement, for example, was never in danger of liquidation after June 1944. Personnel and equipment challenges could be administratively managed, and no disastrous event equivalent to the German debacle at Stalingrad upset the orderly Canadian management of the war. Also, the Allies' increasing military dominance on the western front from September 1944 onward allowed for a situation where battalion-sized units could be withdrawn into reserve for training, rest, or partial reconstitution. This rotation was completed on a relaxed schedule as determined by 2nd Canadian Corps or First Canadian Army headquarters.

The key factor that led to the fall 1944 Conscription Crisis in Canada was the lack of other ranks (nonofficer) infantry replacements. When discovered, this shortage placed significant political pressure on the Cabinet War Committee

of Prime Minister Mackenzie King. This political crisis led to the November 1944 decision to employ home defence conscripts overseas. Prior to this point, during a sixty-day period in August and September 1944, a limited supply of reinforcements had led to serious personnel deficiencies in Canada's infantry regiments. This brief shortage was the result of poor planning for high-intensity operations in Normandy and the Low Countries. Casualty-projection planning at Canadian Military Headquarters (CMHQ), in London, was influenced by the British Eighth Army's recorded casualties by army trade in North Africa during 1941–43. Compared to combat in northwest Europe, warfare in the desert was much more fluid, with the possibility of a logistic and infantry unit suffering similar casualties from wide-ranging German battle groups.<sup>23</sup> As a result, in this mobile armoured warfare theatre, the bulk of Commonwealth casualties in North Africa were not borne exclusively by the infantry. This led Canadian planners to calculate lower levels of infantry replacements than would be required to maintain 100 percent unit strengths in 1944–45. The Canadian government also viewed low casualty estimates favourably because conscription was to be avoided at all costs. But by 1943 the manpower limits of an all-volunteer overseas force were rapidly being reached.

At First Canadian Army headquarters, there were constant returns regarding operational vehicles, vehicles under repair, personnel strengths, and casualties. The most detailed of these were the daily and weekly returns of the Adjutant and Quartermaster (A&Q) war diaries, which tracked the flow of new human and major weapons-systems resources. Using these reports, it is possible to track personnel and material losses and their replacement and to measure the fighting strength of Canadian units at any given time.

There were also organizations within 1st and 2nd Canadian Corps specifically tasked with delivering new ordnance to the field units.<sup>24</sup> Given the value of the assets they were signing for, be it a Sherman Firefly tank or a 25-pounder artillery piece, accurate records were needed for this important job. Tanks, antitank guns, and tracked carriers were examples of equipment that suffered the highest rates of wastage due to their vulnerability to direct enemy fire. While personnel replacement was an all-Canadian affair, the material to equip the British and Canadian armies came from the same common stocks. These stocks consisted of British, Canadian, and American Lend-Lease war material. Depots containing this equipment were located in the United Kingdom or in liberated France. Only a portion of the army's heavy weapons were produced within Canada and then shipped overseas. All major land weapons systems, from artillery pieces to tanks, were found within these common stocks and used to issue replacements to the Commonwealth land forces.

Looking at reinforcement of the three traditional combat arms, *An Army of Never-Ending Strength* does not provide an all-encompassing assessment of the combat effectiveness and tactics of every corps and the resources they each consumed. With the exception of a discussion of the shortage of infantry reinforcements in the last year of the war, it does not address the larger strategic choices made with regard to personnel, equipment, vehicles, or resources.<sup>25</sup> Canadian and German unit-level combat effectiveness – that is, their ability to achieve battlefield objectives – is discussed briefly. But this discussion narrowly focuses on how the army utilized certain tactics to maximize the attrition of the enemy and limit their own losses. While some of these tactics minimized losses in certain areas, they caused higher levels in others. These outcomes in turn influenced the amount of additional resources needed to fill these gaps in specific areas of the reinforcement system.

The focus here is on combat arms units at the regimental level under army-, corps-, and divisional-level command.<sup>26</sup> These infantry, artillery, and armour units were in direct combat with the enemy or operating major weapons systems that were critical to defeating German forces. [Table I.1](#) illustrates the size of regiments (battalions), brigades, and divisions to give an understanding of their composition. Although other Canadian Army trades suffered casualties and required reinforcements, and although they played their part in the final victory, this book focuses on the three combat arms that were in continuous combat and suffered the bulk of the losses. This study does not address consumable resources such as water, petroleum products, and ammunition.<sup>27</sup>

In tracking the replacement, losses, and inventories of vehicles and equipment, this book focuses on major weapons systems. For armoured or artillery regiments, this included heavy armoured fighting vehicles (AFVs) or artillery pieces.

*Table 1.1*

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**Units and formations, First Canadian Army, 1944–45**

Unit/formation	Number of personnel	Composition
Regiment (battalion)	500–900	Three or four companies, squadrons, or batteries
Brigade	2,500–3,000	Three regiments (battalions)
Division	18,000–20,000	Three brigades with separate units attached. Semi-independent brigades often attached in support.

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Source: Bouchery, *From D-Day to V-E Day*, 10–16.

For infantry regiments, the major equipment items were medium machine guns, antitank guns, tracked carriers, and mortars. The number of these items held by a unit indicated the army's ability to replenish equipment stocks during the course of high-intensity combat operations.

The focus here is northwest Europe, and the analysis encompasses events and battles in France, Belgium, the Netherlands, and northern Germany. This choice was not made to denigrate Canadian campaigns in Italy or other theatres; rather, it reflects the fact that the Canadian Army's most powerful and complete force was assembled in northwest Europe. Between June and August 1944, this huge force faced the most powerful and concentrated enemy formations on the western front, and the resulting battles led to catastrophic losses for the 2nd Canadian Corps, losses that were without equal in Italy or Sicily.

Despite these losses, the Canadian Army managed to sustain and reconstitute units in its three traditional combat arms. By doing so, it managed to remain in a perpetual state of offensive capability. While major losses did occur, its combat power was never inhibited for an extended period. The Canadian Army's constant state of strength reflected its administrative and logistic capability. Its administrative strength and total combat power contributed greatly to eventual victory.

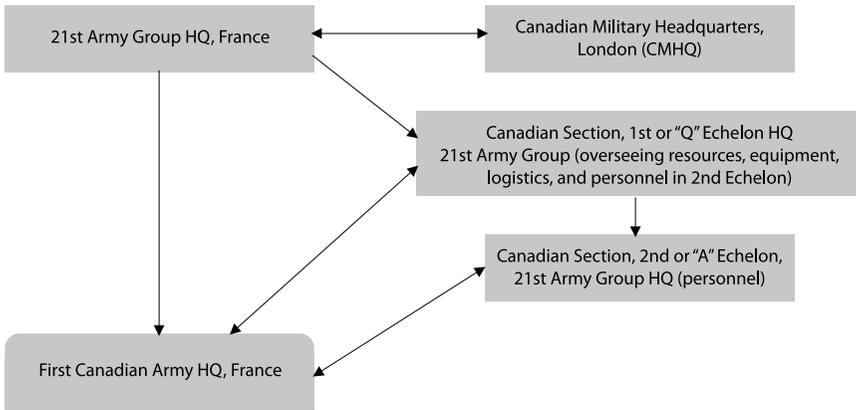
# 1

## Personnel Reinforcements

THE PERSONNEL REPLACEMENT system in the Canadian Army was designed to be a constantly ongoing process for maintaining formations over the long term. Several layers of bureaucracy were necessary to properly administer and control the process. Many control points were needed to ensure that the right number of replacements reached the units in a timely fashion and that the system had the flexibility to divert or increase the flow. In June 1944, staff officers at Canadian Military Headquarters (CMHQ), London, were reasonably confident that they had created a system that could meet any challenges that lay ahead in northwest Europe.<sup>1</sup>

Personnel matters were the responsibility of the Adjutant General's Branch within the Canadian Army and were referred to as "A" branch staff concerns.<sup>2</sup> Logistics matters concerning supplies and war material were handled by "Q" branch, the domain of the Quartermaster General Branch. "Q" matters were more complicated because of the large amounts of war material and consumable supplies required to sustain the Canadian Army in the field. As shown in [Figure 1.1](#), two staff echelons, or groupings, were created to take on these functions at 21st Army Group Headquarters, in France, prior to June 1944's Operation Overlord. Their official titles were 1st or "Q" Echelon (Quartermaster General) and 2nd or "A" Echelon (Adjutant General). These organizations freed First Canadian Army headquarters of all administrative and logistic matters not immediately related to operations. The leadership of Canadian 1st Echelon at 21st Army Group also oversaw and directed Canadian 2nd Echelon activities. Canadian 2nd Echelon's primary focus was personnel administration and replacement.<sup>3</sup>

Canadian 1st Echelon was commanded throughout 1944 by Brigadier A.W. Beament. Following his tenure, Major-General E.L.M. Burns took command in January 1945 after he relinquished command of 1st Canadian Corps in Italy. Both men were very experienced administrators who understood the importance of their responsibilities. The commanding officer of Canadian 2nd Echelon during 1944–45 was Colonel V.S.C. McClenaghan. He was also an officer who had gained experience in administration and planning duties while serving in the Mediterranean theatre. To make all administrative processes with the

*Figure 1.1***Echelons, 21st Army Group Headquarters, France**

Source: Stacey, *The Official History of the Canadian Army in the Second World War*, vol. 3, *The Victory Campaign*.

21st Army Group seamless, reinforcement practices mirrored those of the British Army. This development was necessary to assist the Canadian reinforcement process in June–July 1944, a period before administrative and headquarters processes were firmly established on the continent.

The principal headquarters for Canada’s personnel reinforcement organization was No. 2 Headquarters, Canadian Base Reinforcement Group (CBRG). This headquarters controlled the distribution of reinforcement personnel for all army trades in northwest Europe from 6 June 1944 to the appearance of No. 3 CBRG in March 1945. The No. 2 CBRG was decidedly smaller than its twin reinforcement organization in Italy, the No. 1 CBRG. While No. 1 CBRG had a total of eight reinforcement battalions, No. 2 CBRG had only five.<sup>4</sup> Senior staff were concerned about the deterioration of training levels because less training took place in the holding units the closer personnel were to the front; thus, it was better to have a smaller organization that would hold reinforcements for a shorter period.<sup>5</sup> They planned to hold a two- to three-weeks supply at “intense” casualty rates for the landing forces taking part in the invasion, the 3rd Canadian Infantry Division, and the 2nd Canadian Armoured Brigade. In contrast to the relatively small number of reinforcements available for Normandy, two months’ worth of reinforcements had been set aside for Operation Husky, the July 1943 invasion of Sicily. (The Canadian Army’s miscalculation concerning projected casualty rates and other personnel challenges is discussed in the next chapter.)

The No. 2 CBRG was under the direct command of 21st Army Group and its echelons, and it later worked closely at all junctures with the headquarters of 2nd Canadian Corps, the First Canadian Army, and CMHQ in London.<sup>6</sup> Its five reinforcement battalions were numbered nine through thirteen.<sup>7</sup> During the last phase of the war it was commanded by three experienced staff officers, the first being Brigadier G. Francoeur. His successor was Brigadier Gostling who was in turn replaced by Brigadier J.G. Spragge by war's end.<sup>8</sup> As soon as the Normandy landings occurred, a forward base was established on the continent. The first battalion to establish itself in France was the 10th, landing on 9 June 1944. Next was the 9th battalion, which came ashore on 13 June. These battalions were soon followed by the 11th and 12th. All four fed a British advance reinforcement battalion, which in turn supplied the 1st British Corps reinforcement company with Canadian replacements until mid-July. It was this company that fed reinforcements forward to Canadian formations in response to daily casualty reports.<sup>9</sup> A representative of the Canadian Section of the 21st Army Group Headquarters, Canadian 2nd Echelon, was attached to this company to control the posting of Canadian personnel. In mid-July, the 2nd Canadian Corps became operational, taking over the leadership and administration of all Canadian formations ashore from the 1st British Corps. The 2nd Canadian Corps was placed under the command of the Second British Army, but this arrangement was short-lived. Early August saw the First Canadian Army become operational, utilizing the 2nd Canadian Corps as one of its two corps. With this act, Canadian control of the personnel reinforcement process became nearly total, with only the 21st Army Group Headquarters maintaining administrative oversight.

The last No. 2 CBRG battalion in France, the 13th, landed on 3 August. Once it was ashore, it based itself forward at the newly operational First Canadian Army road-head staging area.<sup>10</sup> This unit's task was to act as the advance reinforcement battalion, replacing a British Army equivalent battalion in this role. It oversaw the flow of personnel to the 2nd Canadian Corps reinforcement company and the divisional reinforcement companies, which directly fed the infantry and other combat arms regiments to constantly make good their losses. On 2 December 1944, No. 2 CBRG's unit strength was 93 officers and 572 other ranks, and it contained 6,846 reinforcements.<sup>11</sup>

The 1944 reinforcement battalion typically consisted of several categories of personnel in addition to new overseas active volunteers.<sup>12</sup> Personnel could be returning battle (related to enemy action) or nonbattle casualties (nonbattle-related injuries), remusters from another trade, or home defence soldiers formerly conscripted through the National Resources Mobilization Act who volunteered to "go active." Thus, although some were new to the Canadian Army,

others had served for some time, possibly years. In view of strains on transportation resources and the necessity of placing personnel where they were needed quickly, a single administrative process was essential. Thus, all personnel, both returning and new reinforcements, were mixed together in one pipeline that stretched from the reinforcement battalion to the divisional reinforcement company.<sup>13</sup>

The process of determining exactly who would be sent where was made as simple as possible. Deficiencies at the unit level were tabulated and reported to Canadian 1st Echelon, which in turn ordered the dispatch of the required replacements from England. By July 1944, a system like the one already in effect in Italy had been created in northwest Europe.<sup>14</sup>

One Canadian Army trade had its own separate reinforcement process. All reinforcement Canadian Armoured Corps (CAC) personnel were split away halfway through the process and attached to 25th Canadian Armoured Delivery Regiment (25th CADR) squadrons. This separation was done in accordance with CAC policy. The 25th CADR delivered all CAC replacements, often as complete armoured fighting vehicle crews, to the armoured regiments. In this way, they were guaranteed to remain with the crews rather than losing their skills during long periods away from their vehicles or during emergency re-mustering into other trades. Also, if the tanks and the tank crews were isolated from each other, they both lost their combat power.

In January 1945, the No. 2 CBRG was reorganized to improve its effectiveness. One large pool of reinforcements was collected in Ghent, Belgium, to be distributed within First Canadian Army formations. By this point, the transport time for reinforcements reaching the front had been lessened considerably by the opening of the Belgian port of Antwerp. The reorganization began with the disbandment of all companies except one within the 12th Battalion, which was redesignated the 12th Base Reinforcement Battalion. It was placed in charge of supplying rear-area Canadian units. Next, the 10th and 11th Battalions were specialized to feed infantrymen to infantry regiments.<sup>15</sup> The 9th Battalion was reconfigured to feed replacements to divisional-level units, and the 13th took responsibility for replacements to Canadian corps- and army-level units.<sup>16</sup> This reorganization focused on the processing of infantry reinforcements, which was necessary because the majority of all battle casualties were occurring within the Canadian Infantry Corps and relatively few replacements were needed within other trades in comparison.

That same month, 21st Army Group Headquarters directed an advanced divisional reinforcement control officer to radio a list of personnel deficits to

2nd Echelon. During the night, personnel drafts were created in the reinforcement battalions close to the front, and they were dispatched to the divisional reinforcement camps by truck in the morning. Within thirty-six hours, personnel orders had been filled.<sup>17</sup>

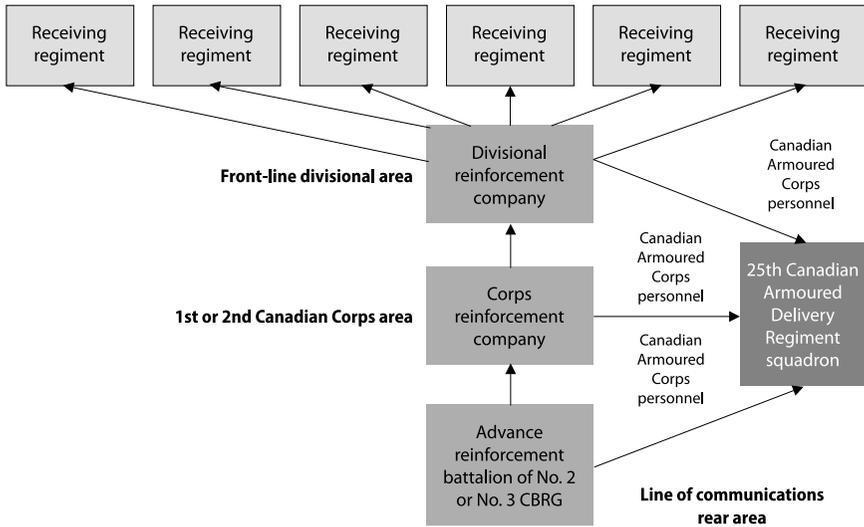
In April, the 1st Canadian Corps, whose principal formations included the 1st Canadian Infantry Division and the 5th Canadian Armoured Division, arrived in the Netherlands from Italy and commenced combat operations. The headquarters of the disbanded 12th Canadian Infantry Brigade, a formation that had been created to meet special conditions in Italy, was configured to form a headquarters for 1st Canadian Corps replacements. This group consisted of three reinforcement battalions and was designated the No. 3 Canadian Base Reinforcement Group (No. 3 CBRG). With the creation of this organization, the 1st and 2nd Canadian Corps each had their own reinforcement systems. No. 3 CBRG's battalions were numbered 14 through 16.<sup>18</sup>

The process of arranging for the delivery of required reinforcement personnel was administrative. The infantry regiment headquarters requested reinforcements through weekly officer and other ranks field returns. After evaluating the reinforcement pool and how many reinforcements other regiments required, Canadian 2nd Echelon would decide what could be spared, when, and to what regiment. This decision was often influenced by corps-level general staff, as certain units slated for operations had to be as strong as possible.

Figure 1.2 illustrates the route that reinforcement personnel took to get to their combat arms unit. For example, on arrival in France in July 1944, Canadian general-duty infantry reinforcements were processed through the 21st Army Group reception camp's Canadian section. From there, the soldiers were posted to a No. 2 CBRG reinforcement battalion. They then moved to the No. 2 CBRG advanced reinforcement battalion. From there, they were moved to the corps-level reinforcement company. Following this, they were sent to the divisional-level reinforcement company. Personnel would then be transported to a regiment within a brigade but not to their designated infantry company immediately. The new arrivals spent time either in the regimental "B" Echelon (supply and administration) or Left Out of Battle grouping to allow them to acclimatize to conditions at the front. Following a short period, they would be posted to a platoon within a rifle company. Including shipboard transport from the United Kingdom to Normandy, reinforcement infantry soldiers had a total of eight moves between different camp organizations.<sup>19</sup> At various waypoints within the reinforcement process, a soldier could be redirected if requirements or the situation changed. During the general-duty infantry reinforcement shortage of

Figure 1.2

The personnel delivery system, 1944–45



Source: LAC, RG 24, vol. 10,663, “First Canadian Army Plans Diagram of Personnel Replacement and Releases,” file 215C1.045 (D12).

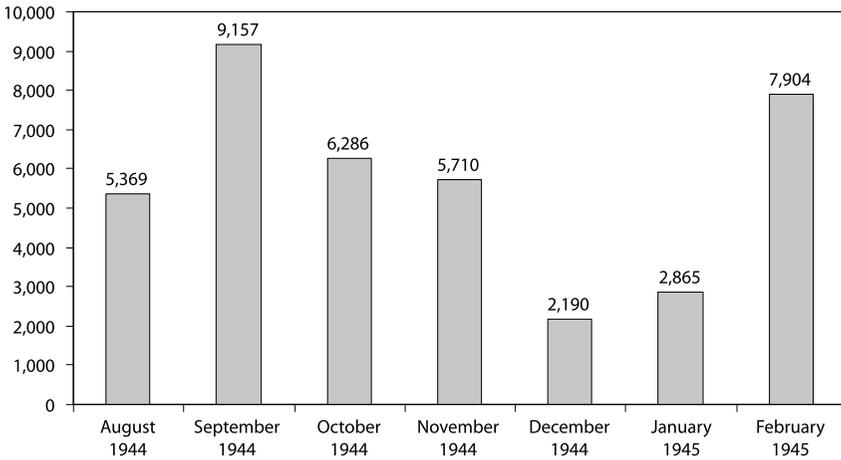
the summer of 1944, soldiers from other trades were remustered into infantry regiments after a period of retraining. Nothing else could be done to address the problem in the short term. In fall 1944, remustering of excess noninfantry personnel continued, and reinforcements in the United Kingdom and the continent were retrained to upgrade what infantry skills they had.<sup>20</sup>

Rapid mass transfers were not an everyday occurrence for the No. 2 CBRG. This organization had to consistently maintain a float of personnel should an unforeseen disaster occur, possibly placing several infantry battalions in large deficit positions. If the reinforcement battalions had given away all their personnel at this point, it would have been impossible to respond to such a disaster. They always had to be ready for the possibility that a military reverse could occur. Except for the period near the war’s end, this need influenced decisions about the release of reinforcements to front-line units. Aside from the need to keep an emergency reserve of personnel in the reinforcement pool, administrative processes and travel times extended the period before a regiment would receive men at its “B” Echelon.<sup>21</sup> Transfers of over two hundred personnel reinforcements in one day were extremely rare.<sup>22</sup>

To qualify for a large immediate transfer, a regiment's immediate future performance in an upcoming operation had to be in doubt. Once reinforcements joined their units, they were taken on strength by the regimental adjutant. To the higher chain of command, they would then appear as part of the unit on returns for the next day. It is important to note that a transfer of new reinforcements often did not immediately alter the capability of the receiving regiment. Despite urgent requests for new personnel by a receiving regiment, the same unit would often knowingly slow down the "arrival" process, taking time to slowly integrate new soldiers. This action could make the regiment look strong on paper even when it had not fully reorganized itself to absorb its new strength. As noted previously, the new arrivals were often given time to acclimatize themselves within a regiment's "B" Echelon or Left Out of Battle contingents. Acclimatization prevented unnecessary errors in the field that could lead to casualties within hours of arrival.<sup>23</sup>

An important secondary function of the personnel reinforcement system was not one that its designers envisaged. Recovered medical casualties returning to their units were separate from new personnel but part of the incoming reinforcement stream. The return of battle and nonbattle casualties without psychological problems was straightforward; these rehabilitated personnel rejoined their units with minimal delay. However, after intense combat operations, a portion of nonbattle casualties were psychiatric. A segment of these cases could be rehabilitated through a short rest period close to the front line in the battalion regimental aid post; others, however, needed further rest.<sup>24</sup> As part of their medical rehabilitation process, these soldiers were fed directly back into the reinforcement companies.<sup>25</sup> The 2nd Canadian Corps reinforcement company often acted as a tool to extend the rehabilitation period for battle exhaustion cases. This valuable time was used for rest, therapy, and rehabilitation. Also, if an emergency did occur, the soldier in question would be close to the regimental or brigade area of operations.<sup>26</sup>

The capacity of the reinforcement system to deliver personnel was impressive. [Figure 1.3](#) shows the number of Canadian reinforcements dispatched to the 21st Army Group between August 1944 and February 1945. The one blemish on the overall record was the number of personnel sent in August 1944, which did not match demands for reinforcements. This deficit stemmed from poor planning on the part of the Canadian Army's leadership (discussed in the next chapter). The strength of units was adequately rebuilt in September 1944. All units on the eve of the Scheldt fighting were close to their war establishment figures. This rebuilding occurred again in November 1944 following the Battle of the Scheldt.

*Figure 1.3***Number of reinforcements dispatched to 21st Army Group, August 1944 to February 1945**

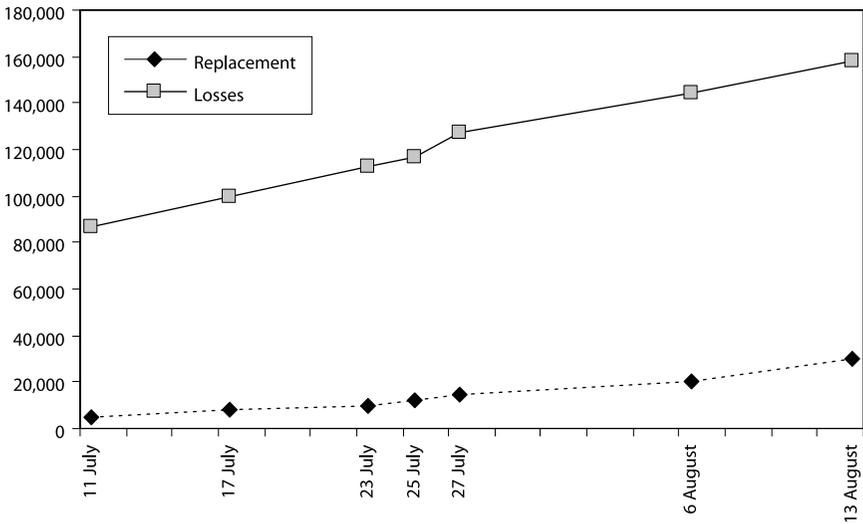
Source: LAC, RG 24, vol. 18,616, "17 March 1945 Report on Canadian Reinforcements Dispatched to 21st Army Group in North West Europe, 5 August 1944–28 February 1945," file 133.035 (D92).

The First Canadian Army was largely inactive during December 1944 and January 1945, with the result that there was low demand for reinforcements other than for ongoing nonbattle losses. Reinforcement numbers spiked again with the resumption of high-intensity operations in February 1945. The Canadian Army's reinforcement ability was superior to that of the German land forces. As shown in [Figure 1.4](#), the German Army, Waffen-SS (the military branch of the SS), and Luftwaffe (air force) ground units were bled white in Normandy, and their losses were not replaced. The two points for every date in the graph chronicle the gulf between losses and replacements. With new losses occurring daily, German units on the front line never had a break to build up their strength. The failure to provide a regular flow of replacements to offset losses meant that units got progressively weaker.

An important question to be addressed definitively is whether the First Canadian Army received sufficient replacement personnel to cope with ongoing battle losses within its formations. Wartime records illustrate that the total number of reinforcements dispatched to keep units at 100 hundred percent of their war establishments was, at first glance, excessive. From August 1944 to February 1945, the 2nd and 3rd Canadian Infantry Divisions, the 4th Canadian

Figure 1.4

## German battle losses and total replacements, July–August 1944



Source: Russell Hart, *Clash of Arms*, 385. Data from Deiter Ose, *Entscheidung im Westen 1944: Der Oberbefehlshaber West und die Abwehr der Alliierten Invasion*. Stuttgart: Deutsche Verlags-Anstalt, 1982.

Armoured Division and the 2nd Canadian Armoured Brigade sustained 28,277 battle casualties. During the same time period, 36,145 Canadian reinforcements were dispatched to the First Canadian Army. Additional reinforcements were needed due to losses from other causes, including nonbattle casualties, transfers, imprisonment, and AWOL cases. These categories combined constituted an ongoing drain to personnel levels, removing soldiers from units just as effectively as battle losses.<sup>27</sup>

In summary, despite its bureaucratic process, the reinforcement system's production at the CBRG level was continuous, making weekly or twice weekly deliveries at regimental unit "B" Echelons. It was also flexible and could be manipulated to increase the size of personnel replacement deliveries, provided enough replacements were present.

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