First In Last Out: The Operations of Anglo-Canadian Engineers On Juno Beach

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Bachelor of Arts, University of New Brunswick, 2008

A Report Submitted in Partial Fulfillment
of the Requirements for the Degree of

Master of Arts

in the Graduate Academic Unit of History

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This Report is accepted by the Dean of Graduate Studies

THE UNIVERSITY OF NEW BRUNSWICK

September, 2009

Your file Votre référence
ISBN: 978-0-494-82625-6
Our file Notre référence
ISBN: 978-0-494-82625-6

DEDICATION

For Mom

ABSTRACT

It is well known that on June 6th 1944 allied armies attacked Hitler's vaunted Atlantic wall. D-Day heralded the beginning of the end of Hitler and the Third Reich. Few however are aware of the monumental allied engineering effort put forth to breach the Atlantic wall defences. This report will conduct a case study of one Canadian Military Engineer unit, the 6th Field Company Royal Canadian Engineers. This unit landing on the Canadian sector codenamed Juno beach is used to demonstrate the crucial importance engineering operations had on the success of the landings. This evolution begins with an examination of the historiography of military engineer literature and will progress with an outline of the training and organization of engineers prior to D-Day. The final portion encases a detailed account of engineer operations on Juno beach including chilling first person accounts from the actual engineers who landed. This information will be used to analyse the impact of engineering operations on D-day and draw conclusions based on those experiences.

ACKNOWLEDGEMENTS

First and most importantly I want to thank myself for never giving up. I would also like to thank my girlfriend Diana for all her morale support and my good friend Anna McInnis for all her help with this project.

I wish to thank the History Department of the University of New Brunswick, The Gregg Centre for the Study of War in Society and in particular Professor Marc Milner for providing me with excellent advice and direction over the years. A big thank you goes out to Lieutenant-Colonel Vince Larocque for his generous support of this project and the Canadian Forces School of Military Engineering Museum and its entire staff.

I must also acknowledge the men of the Royal Canadian Engineers who against overwhelming odds, fought with the courage and determination unique amongst Sappers.

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Chapter One: Sappers Prayer

"Almighty God, we pray Thee to bless the Royal Canadian Engineers: may our bridges always stand and our charges never fail, our men be ever loyal and our officers worthy of their loyalty: may we work intelligently in all our purposes and be skilled in our trades- good soldiers for Queen and Country everywhere, and true Sappers all."

-Amen[1]

Combat Engineers have been an integral part of armies for thousands of years. Whether it was siege warfare of the ancient or medieval age, or bridge and railway construction in the wars of the 18-19th century, combat engineers have proved their worth to advancing the mobility and counter-mobility of armies. The role of the modern combat engineer is simply defined as "helping friendly forces to live, move, and fight while denying the same to the enemy and when necessary to act as infantry in the defence"[2]. In the Second World War, combat engineers were in high demand in all armies. Their job consisted mainly of, but not limited to, constructing roads and fortifications, clearing mines, building bridges, demolitions and assault water crossings.

Military engineering is a forgotten part of Canadian military history. If one examines Canadian military literature, you will find a preponderance of scholarly and popular history on the exploits of armor, infantry, and artillery, yet little to nothing on military engineering. This, despite the fact that engineers were involved and crucial to every major battle the Canadian army fought in the Second World War. An example of their importance would be the D-Day landings of June 6th 1944 on Juno Beach. On that day, military engineers were at the forefront of operations. Among the first units on the beaches, they were out in front clearing gaps while under devastating German fire.

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[1] Portugal, Jean E. *We Were There The Army-6 A Record for Canada,* (Ontario: The Battered Silicon Dispatch Box, 1998).18.

[2] National Defence Department, Canada, "1 Combat Engineer Regiment", January 2006. Online Available: http://www.army.forces.gc.ca/1COMBAT_ENGINEERS/contents.htm , 23 November 2008.

Afterwards, they were tasked with clearing the entire beaches while the whole army passed through. They were literally "First In, Last Out".

It is therefore pertinent to examine Canadian military engineering operations in the Second World War. A case study of Juno beach operations will serve both to highlight engineer importance on the beach and to further our understanding of engineer operations in the Second World War. The 6th Field Company R.C.E. which participated in the D-Day landings, will be the focus of this case study. The methodology used for this exercise will be borrowed from Terry Copp, one of Canada's leading historians of the Second World War.

Canadian military history in the Second World War has had to endure the negative reputation that foreign militaries developed regarding the Canadian army.[3] The argument military historians made after the Second World War was that the Canadians only achieved success through "brute force" and superior numbers rather then military art. Recent historians, such as Terry Copp in Fields of Fire, have done much to disprove this stereotype. By examining Canadian battles in North-West Europe Copp has reinterpreted the operational success of the Canadian military. Copp wrote: "The argument of this study is that the evidence demonstrates that the achievement of the Allied and especially the Canadian armies in Normandy has been greatly underrated while the effectiveness of the German army has been greatly exaggerated."[4] Copp re-examined primary documents in order to argue that the Canadians often fought the

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[3] The controversy essentially surrounds the closing of the Falaise Gap at the end of the Battle of Normandy in August 1944. Much of the blame was unfairly placed on the First Canadian Army for not closing off the pocket and capturing the retreating German army.
Hastings, Max Overlord: D-Day and the Battle for Normandy. (Vintage Books USA; Reprint edition). 353.
[4]Copp, Terry, *Fields of Fire*, (Toronto: University of Toronto Press, 2004).13.

Germans at relatively even odds, rather then having superior numbers. Copp argues that examining smaller unit formations such as companies is an important way to measure operational success. It will be through this lens that an operational case study of the 6th Field Company Royal Canadian Engineers will take place. However, in order to fully appreciate this topic we must first explore the historiography of Royal Canadian Engineers in the Second World War.

A good starting point for any historiography is the official history, *History of the Corps of Royal Canadian Engineers*. The Second volume of the RCE history in the Second World War was published in 1966. Written by two engineer officers, The history is a solid account of engineers during the interwar years and the mobilization of the R.C.E. for the Second World War. The history outlines how the Royal Canadian Engineers based its organization, and much of its doctrine and training on the British model. Canadian infantry divisions each contained three field engineer companies and one field Park Company.[5] The official history does enhance the engineer's reputation and points out how the infantry realized that these specialists could save their lives. For example, during the heavy street fighting in Ortona or "little Stalingrad", Canadian engineers exemplified their use of assault tactics. The streets of the town were death traps and had to be avoided, so the engineers used explosives to blow down the walls between the houses.[6] This technique, now referred to as "mouse holing", caused many German defenders on the other side of the walls to be taken by surprise and neutralized by the infantry support. To clear upper floors engineers placed 30 pounds of fused plastic

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[5] A field company consists of approximately 250 men, while the park company was a slightly smaller unit that took care of the larger equipment such as bridging etc.

[6] Kerry, A.J.; McDill, W.A. *History of the Corps of Royal Canadian Engineers*.Vol. 2, (Ottawa: The Military Engineers Association of Canada, 1962).170.

explosives on a chair in the middle of the lower floor. The detonation collapsed the floor above and German defenders who weren't killed in the initial blast fell through the floor only to be greeted by Canadian infantry.[7]

The official history reveals itself as 'drum and trumpet history' consistent with first wave Canadian military history.[8] The book is a solid starting point, but little has been done to delve deeper past the traditional narrative held within its pages.

C.P. Stacey, the official historian of the Canadian army in the Second World War, published *The Victory Campaign* in 1960 It examined the Canadian army operations in Northwest Europe. Stacey writes an impressive narrative history of the Canadian operations in Second World War. The volumes themselves are well researched; Stacey had plenty of documents, as he was the Canadian Second World War official historian. He did mention actions of Canadian military engineer units, he even made reference to the 6th Field Company and noted their sacrifices made on D-Day.[9] However Stacey adhered to the view that Terry Copp refutes-that the Canadian army only won its battles through superior numbers rather then military skill.[10] Nevertheless, the book is an important reference guide for military engineer operations.

Several unit histories have been written, but operational coverage of Canadian military engineer operations remain static at best. *The 2nd Battalion R C E (1945),* is a unit scrapbook of mediocre quality which tells the reader little. The book was written by the unit's Regimental Sergeant Major A. Lockwood in 1945. The short history provides

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[7] Ibid,p 170

[8] First wave Canadian military history was based on the official histories from the war usually written by either serving or recently retired service members

[9] Stacey, C P *The Victory Campaign The Operations in North-West Europe, Volume III, Official History of the Canadian Army in the Second World War* (The Queen's Printer and Controller of Stationery, Ottawa, 1960),104

[10] Ibid, pg 276

the story of the unit's inception in Camp Borden, Ontario and its busy work done in Northwest Europe. The history reveals that the unit was essentially a bridging unit that built bridges in France and Holland. It also rebuilt Carpiquet aerodrome in France and the entire unit wholeheartedly agree that they were constantly held back from the front so that British Sappers could take the important jobs.[11] This may have been the case, but with no additional published accounts it may never be known for sure.

The story of the *23rd Field Company, Royal Canadian Engineers* book is one of only half a dozen copies in Canada. The book, published in 1947 for $675.00 dollars from the unit regimental funds, is a collection of war diaries starting on 15 July 1943 and ending on 30 September 1945. The unit prides itself on helping to evacuate what was left of the British 1st airborne division that was trapped in Arnhem in September 1944 during the disastrous Operation Market Garden.[12] The engineer operation was crucial in saving the two thousand survivors of the airborne division that was on the verge of annihilation. Silence was essential in the initial stages so paddling instead of using the outboard motors was selected. The unit worked all night to retrieve the airborne troops and suffered numerous causalities throughout the operation.[13] The 23rd field company completed the operation against a strong current and with Germans mortaring the assault boats.

As was previously stated, Canadian military historians have largely neglected the contributions of combat engineers in their historical writing. However, in this case one small piece exists. Terry Copp, writing an article entitled "Our Rescue Role at Arnhem" (2000), gives the 23rd much of the credit for evacuating the British. Copp argues that many of those two thousand men who were saved owe their lives to the Royal Canadian

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[11] Lockwood, M.B.E. The Story of 2nd Battalion R.C.E, 1940-1945. 34.
[12] Tucker, M.L. *The Twenty Third Story,*(London, Ontario,1947).34-41.
[13] Ibid,p.38.

Engineers.[14] A recent addition is John Sliz's 2009 book "The Storm Boat Kings". John Sliz is a draftsman from Southern Ontario whose book traces the history of the 23rd Field Company R.C.E. Sliz's main argument is that the 23rd were well trained in the use of the "Storm Boats". These boats that had outboard motors he argues, should have been utilized more readily during the Operation Market Garden in late September 1944. The book is a well researched piece of military history. Sliz draws on oral histories of surviving members and primary documents of the period to draw his picture of life in the 23rd.[15] However despite this glimmer of hope the Canadian combat engineer literature is poorly represented in the historical writing and is without a comprehensive analytical approach. This subject has remained on the periphery of Canadian military history for far too long.

The *history of the 6th Field Company, Royal Canadian Engineers from 1939-1945*, written by S.A. Flatt in 1956 is the best account of an engineer unit during the war. It gives a comprehensive overview of the unit's formation back in the First World War and then mobilization during the second. The senior unit trained extensively in England and first saw action on Juno beach as one of the engineer units of the 3rd Canadian Infantry Division. An interesting anecdote is that unit Sergeant Maddy became famous in England for being a demolitions expert. The sergeant designed the training beaches in England that were the scene of many "practice" invasion exercises. In fact, he made the beaches so difficult to overcome that many would thank him later when they landed in

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[14] Terry Copp "Our Rescue Role At Arnhem:Army Part 32",Legion Magazine, September 1st 2000. Online Available: http://www.legionmagazine.com/en/index.php/2000/09/our-rescue-role-at-arnhem/ ,23 November 2008.

[15] Sliz, John, *The Storm Boat Kings: The 23rd RCE at Arnhem 1944,* (St. Catherines, Ontario: Vanwell Publishing Limited,2009),64.

Normandy for this realistic training.[16] But the unit was not without mishaps. While constructing a 450 foot Bailey bridge over a river in England the bridge nearly fell into the gap but was saved by a quick reaction by the bridge commander just in time.[17]

On Juno beach itself the unit came under intense fire, as its job was to help the 'funny' tanks clear gaps in the obstacles. The unit's 2nd platoon lost 50% of its men who landed on that day. The unit later completed an assault river crossing of the Orne River while under fire and was able to bridge the river. Like the other unit histories the 6th is a good source of what life was like as an engineer during the war. However, the history is handicapped by the fact that it was written by the unit quartermaster. Thus, it is unable to discuss the higher operational planning, as it is devoid of any officer or senior leadership input.

In *Ordinary Heroes* joint engineer and infantry operations are discussed. The book is a compilation of personal accounts of soldiers involved in a multitude of services during the war. Bill Crysler, an engineer with the 6th field company, recounts the terrible hard work it was to clear the beaches while under fire and weighted down by 125 pounds of gear in waist-deep water. He comments on how engineers used the buddy system to keep track of the men in the unit. He discusses the relationship with the infantry as simply "if they wanted us to do something we did it".[18]

T. Robert Fowler's book *Valour On Juno Beach* was written in 1994. In a series of anecdotes the book shows what life was like on the beach. For example, Sergeant Hugh Morris Fitzpatrick, who was a non-commissioned officer of the Royal Canadian

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[16] Flatt, S.A. History of the 6th Field Company, Royal Canadian Engineers, 1939-1945(Vancouver, B.C.: Wrigley printing, 1956).54.
[17] Ibid, p.73.
[18]Gardam John, *Ordinary Heroes*, (Ontario, Canada: General Store Publishing House, 1992).77

Engineers 5th Field Company, was awarded the military medal for his actions on Juno beach. Fitzpatrick, at great personal risk, encouraged his men by example to remove obstacles that were still under very heavy fire in order to support the infantry and armoured advance. The book is not aimed at engineers but does at least mention their heroic contributions to the war. Again, as has been shown, there is a definite lack of attention paid to Royal Canadian Engineers and the hard work paid in blood by the corps.

Jean Portugal, a distinguished Canadian journalist, spent thirteen years conducting interviews with Canadian servicemen of the war. In her reprinted 1998 version of volume six of her seven volume series entitled *We Were There* she devotes an entire chapter to the oral history of the 6th Field Company during the war. She gives several gripping histories of the chaos and confusion of D-Day landings. The book is well written and is an important reference tool for understanding what life was like on Juno beach.

Royal Canadian Engineers in Italy gained respect from the infantry and consequently so does the historical narrative. Mark Zuehlke in his book *Ortona* (1999) mentions the engineers and the significant contribution they made to the campaign. However, in one embarrassing account Zuehlke makes light of the so-called "impossible bridge" across the Moro River in 1943. Canadian Engineers said was impossible to cross, they were then shown how to do it by the Indian Army engineers.[19] But, in his 1999 book, *Juno Beach Canada's D-Day Victory*, In the book Zuehlke offers only fleeting reference to Canadian military engineer operations. They are noted exactly three times in the course of the entire book and one of those references is about the British Royal Engineers. It is ironic that Zuehlke himself comments on how little has been written on

[19] Zuehlke, Mark, *Ortona: Canada's Epic World War Two Battle*, (Vancouver, British Columbia: Douglas & Mcintyre, 1999).137.

the Canadian experience on Juno beach altogether.[20] So, it is hardly surprising then that the engineers operations have been missed. Zuehlke's book is popular military history and it simply reflects the strengths and weaknesses of the existing literature

Perhaps then writers such as William Buckingham writing his book entitled *D-Day the First Seventy Two Hours* are leading the resurgence in the subject. Buckingham argues that far too much attention and credit has been given to the American beaches while the British and Canadian beaches have been left to the historical periphery. Buckingham states that beaches like Juno were very heavily defended and it is time for the historical narrative to recognize this fact [21] If Buckingham's theory is true then it would beg the question of how those German defences were dealt with. Notwithstanding the intense naval and air bombardment, the engineer role the units that actually blew the gaps in the wire-would be of extreme importance.

The Canadian experience so far in the historical narrative has been very pro-engineers and scholarly interest is sparing. Since the end of the Second World War much has been written on the infantry, armour and artillery services. However the engineers have fallen far short. Any author that does comment on engineers only notes them in passing. The three allied services have had a proud history in each of the nation's militaries. However, the historical sources have largely refrained from addressing this proud military trade. It then leaves the interested reader to ask the question· why? The official histories offer a student of the subject a lavish starting point from which to explore the engineer branch In this writer's opinion the combat engineer story has yet to

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[20] Zuehlke, Mark, *Juno Beach Canada's D-Day Victory June 6th 1944*, (Vancouver,Toronto,Berkeley Douglas & McIntyre,1999) 1-2

[21] Buckingham, William, *D-Day The First 72 Hours,* (Gloucester, U K Tempus, 2004)

be told. The combat engineers, like the artillery, were force enablers and were crucial to success to army operations. It was the engineers who built the bridges, cleared the obstacles and swept the roads of mines. This accentuated their importance in combined arms operations. Without these tasks completed, and the ingenuity summoned, the allied armies would have been orphaned on the beaches and the river banks and towns that made up the World War Two battlefields. This is why the rest of the army always "*follows the Sappers.*"

Chapter Two: What will tomorrow bring?

The 6th Field Company, Royal Canadian Engineers was formed on May 7th 1912 in North Vancouver, British Columbia. During the First World War, the unit was responsible for training 4,176 recruits, of whom 3,827 saw service overseas. While in combat, these troops established a respected record of service. During the years from 1920 until 1939 the officers and men of the 6th Field Company continued engineer training during the evening sessions in the drill hall in North Vancouver. As many as possible attended summer camps at various training centres in Western Canada.[22]

On September 1st 1939 the unit, then consisting of six officers and 30 men, received orders that they were to mobilize immediately under their officer commanding Major T.H. Jermyn. The part-time soldiers were now full-time. Despite the fact that Canada was not officially at war, it was seen as prudent by senior military staff to be prepared. The nucleus for the new Canadian Army would be the non-permanent active militia units. On September 10th, only a few days after the official declaration of war, the nominal roll of 6th Field Co. consisted of six officers and 182 men, as new recruits flocked to the armories. The majority of these new trainees were technicians and tradesmen who had quit their civilian jobs in order to enlist in the engineers.[23]

Over the next year the unit engaged in construction of ranges, sentry boxes and suitable accommodations for the huge influx of new members in the North Vancouver area. Then, unexpectedly, the unit was ordered on the December 31st to reduce strength from two hundred plus members to three officers and fifty other ranks. This caused much consternation; tradesmen did not want to transfer to non-technical units, and the 6th had

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[22] Flatt, S.A. History of the 6th Field Company, Royal Canadian Engineers, 1939-1945.Vancouver, B.C.: Wrigley Printing, 1956.1.
[23] Ibid,2.

already become a closely-knit organization. Transfers were made however; some of the men went to other R.C.E. units, the Seaforth Highlanders of Canada, and The Westminister Regiment. Fortunately, on December 6th 1939, before too much damage was done, the transfers were stopped. Unit strength however had dropped to 130 all ranks.[24] This episode was pointedly ignored by the 6th Field Company unit history written by S.A. Flatt.

Training during this period was rudimentary due to a great shortage of trained instructors and of equipment. It is important to emphasize the lack of equipment and resources available to the Canadian army in these early months.[25] Every new unit was allocated only one permanent force non-commissioned officer. Men would parade and learn foot drill in their civilian clothes if no uniforms were available. It was not until late August 1940, that 6th Field Co. finally received its proper equipment, including web equipment, water bottles, mess tins and rifles.[26]

Canadian military engineer doctrine was essentially British doctrine. The Canadian permanent force prior to the war was just too small, undermanned and underfunded to keep pace with recent engineer developments or to develop its own equipment, methods and doctrine. Canadian and British engineer units were, therefore, mirror images of one another. It made sense to standardize their training due to the fact that many of the units would be working side by side in combat. Royal Canadian Engineer organization was based on the Field Company concept. The field company was a self-contained unit with its own transport/stores and cooks. The company was typically

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[24] Kerry, A.J.; and McDill, W.A. *History of the Corps of Royal Canadian Engineers*. Vol. 2, Ottawa: The Military Engineers Association of Canada, 1962.15-16.
[25] Ibid,18.
[26] Flatt, 8.

made up of three field platoons under an engineer officer and one HQ platoon for the officer commanding and his staff. Each one of these platoons had approximately 68 men and one officer. Since engineers were often tasked individually, rarely did the whole company work together like a infantry company would. The platoons were designed to be self-sufficient. They had their own stores and cooks included. In each platoon, every trade was represented from the blacksmith to the miners and electricians.

There was some debate in Canada among military officers at the start of the war about how engineers should be organized. Some argued for the battalion concept of the First World War rather than independent companies. However, the British found that battalions were a clumsy structure and preferred their company concept. Moreover, foreseeable tasks would be better suited to companies. Alas, a few Canadian Engineer Battalions were raised and two of four reached operations as battalions. The war diaries of these battalions indicate that the British conclusion on the clumsy structure of battalions was right. They were kept in the rear and used for only large tasks.[27]

6th Field Company received orders in the summer of 1940 to prepare to embark for Nova Scotia. The company, now comprising some 250 men all ranks, boarded on old colonist railcars for their long trip to the east coast. They arrived in Debert, Nova Scotia on August 12th 1940 to a warm reception from the other two Field companies that would make up the 3rd Canadian Infantry Division engineers: the 16th from Montreal and the 18th from Hamilton, Ontario.[28] The Canadian military used Halifax as a major embarkation point for troops crossing to Europe. Debert was an ideal choice for staging facilities as it was located on the Montreal-Halifax main rail line of the Canadian

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[27] Kerry, and McDill, 23-24.
[28] Kerry, and McDill, 29.

National Railways. The surrounding area could be utilized for training purposes and also it was only 100 kilometers from Halifax. The camp engineer Captain C.S. Nicholl, a Cape Bretoner who was stationed in Halifax, had previous experience designing Camp Aldershot in Kentville, Nova Scotia.[29] Captain Nicholls developed a plan to build the Debert camp utilizing the three field companies. The Engineers were to carry out a survey of the area and lay out the location of the roads, building sites, and water and sewer lines for the whole camp. The Debert camp was designed to have sufficient accommodation for 23,000-25,000 troops and to be completely self contained, with everything from drill halls, to a fully furnished 300-bed hospital building.

While at the camp the 6th unit suffered the sudden loss of its new commanding officer Major S.F.C. Sweeney. According to the war diary the former Royal Engineer, who was also an officer of the Order of the British Empire died on November 22nd 1940 in the Debert Camp, of a severe stroke after lunch. The next day Captain T.H. Jermyn resumed command of the unit.[30]

At noon on the 21st of June 1941, after a long winter of construction and maintenance work, the 3rd Division engineers, headquarters and the three field companies, a total of 35 officers and 818 other ranks including 187 reinforcements, sailed for England in the troop ship Brittanic out of Halifax. The battleships Ramilles and Repulse acted as escorts for the convoy. The 6th Field Company was one of the first units of 3rd Canadian Infantry division to reach Britain. It arrived at the port of Gourock in Scotland and then set off on twenty hour train trip to Aldershot in Southern England.

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[29] Doreen MacDonald "Origins of Camp Debert" (Online)http://www.debertmilitarymuseum.org/dmorigins.htm Access date July 15th 2009.
[30] 6th Field Company R.C.E., War Diary Nov 1940.

Aldershot was to be the home base for the Canadian army for the duration of the war.[31] It was now July, 1941, and the 6th Field Company had now officially taken up residence in England.

Engineer training officially took place in Worplesdon, ten miles to the northeast of Aldershot. Much of the time was spent preparing barracks for the cold winter that was soon to come. Training began in November 1941 with a course on bridging. The whole company was trained in floating bridges, pontoon rafts and folding boat equipment. Exercises were carried out on the Thames River at Pangbourne, where the company became very proficient in bridge construction.[32]

Bridging in the Second World War was dominated by "The Bailey Bridge", designed by Sir Donald Bailey. The bridge is a portable, pre-fabricated truss(triangular structures which connect to nodes).The basic concept of the bridge involves the bolting together in a variety of combinations (depending on the job required) of a number of flat steel panels and frames which can be pre-assembled into girders. Panels are attached to each other by the insertion of steel pins through holes in overlapping jaws. The roadway is carried on steel transoms resting on the bottom chord of the girders to form a "through" bridge. The bridge had a maximum span of 240 feet. The advantages of the Bailey were its modular design and that it only required a small group of men to construct the bridge.[33]

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[31]Hampshire County Council, "Development of the Camp at Aldershot" Last Updated 29 January 2009, (Online) http://www3.hants.gov.uk/museum/aldershot-museum/local-history-aldershot/aldershott.htm Accessed on July 27th 2009.

[32] War Diary Nov 1941.

[33] Pakenham-Walsh R.P. Major General, *The Second World War 1939-1945 Army, Military Engineering (Field)*London: The War Office, 1952.259-261.

In the New Year of 1942, heavy emphasis was placed on anti-gas training and using the new Polish mine detector. Early in 1942 the 6th Field Company NCO's began instructing the 7th Infantry Brigade regiments the basics fundamental SOP's engineer training.[34] Pioneer sections or "Assault pioneers" were infantry trained by engineers in order to have an organic engineer capability within the infantry battalions. Sgt N. Maddy, the unit explosives expert, gave the Canadian Scottish, Winnipeg and Regina Rifles a demonstration by blowing a crater in the earth.[35]

Training during this period consisted primarily of lectures on assault boats and river crossings and some rifle practice on the ranges. The officers and senior NCO's were busy attending training courses. One officer's course on January 23rd 1942 in Selehurst, England, which focused on cooperation of all arms using sand tables, was also attended by British Lieutenant General B.L. Montgomery and Canadian General Lt Gen H.G. Crerar.[36] Most initial training took place at the Royal Engineers School of Military Engineering at Ripon, North Yorkshire. It had been moved from Chatham at request of the navy who needed the accommodation close to the port.[37] The Royal Canadian Engineers School of Military Engineering was also established in 1942 in Chilliwack, British Columbia and would eventually train five thousand Sappers during the war.[38]

A key component of engineer work is battlefield mobility, and the advent of anti-personnel and anti-tank mines meant that this threat required counter-measures to ensure

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[34] Flatt,36.
[35] War Diary, 03/01/42
[36] War Diary,23/01/42
[37]Picea, Royal Engineers Museum 2005-2010, "Corps History Part 6 Royal Engineers Establishment (1812-1962), Page Revised 07-Feb 2007 (Online)http://www.remuseum.org.uk/corpshistory/rem_corps_part6.htm Accessed Aug 2nd 2009.
[38] National Defence, "CFSME", Page Revised June 25 2009 (Online) http://www.army.forces.gc.ca/CFB_GAGETOWN/ENGLISH/SCHOOLS/CFSME/INDEX.ASP Accessed Aug 3rd 2009

that this menace could be contained. A landmine is a target-operated explosive weapon. This means that in most cases the victim is required to actuate the device. Mine warfare had been practiced in the First World War. The development of mines and the counter measures associated with them became a major factor for the first time in the various campaigns from 1939-1945. Mines were seen as an important tool to stem the tide of armored warfare, which would dominate the Second World War. Millions of mines were to be used in the war and few understood their importance even in 1939. When one British officer on exercise requested five or six thousand mines on a divisional front, such a suggestion (at the time when actual mines were almost non-existent) appeared ludicrous. The war was to show how moderate this estimate would be. Mines in the Second World War were obstacles and in most cases they were sited to guide the enemy into pre-arranged "kill zones".

There were and still are two main classifications of landmines. The anti-personnel mine is designed to kill the average foot-soldier and contains 1-2 pounds of explosive. The other is the anti-tank mine that consisted of 10-12 pounds of explosive and would detonate under the pressure of a tank track or vehicle wheel but not normally by a man on foot. British mine warfare doctrine was created and fine-tuned in the North African desert by the British army from 1940 to late 1943. Mine detectors were first invented by a Polish officer Jozef Kosacki and first saw service at the battle of El Alamein in November 1942.[39] Mine warfare would be a steady learning curve for the 6th Field Company in its preparation to land on the Normandy beaches. With mines also came explosives training (or 'demolitions' in army vernacular). Explosives were extensively

[39] Pakenham-Walsh. 329-343.

used by both sides during the course of the war and their proper or improper use could have serious implications for operations.

A brief history of demolitions in the Second World War shows us that at the beginning only ammonal and guncotton were available. Ammonal, which was slower burning, was used where a pushing effect was required, whereas guncotton with its much higher rate of detonation, was used for shattering. Thus, ammonal was used to blow craters in the earth to stop vehicles and destruction of bridge abutments. Gun cotton was used to cut steel girders. Other commercial explosives such as dynamite, gelignite, and blasting powder, were available and engineer units were trained in their use, but they were not carried into the field as they were much more sensitive and liable to explode if struck by rifle bullets, shell splinters, etc. Another form of explosive, 'plastic', was being manufactured and had great advantages over guncotton, in that that latter (being in hard blocks) was difficult to get in close contact with uneven surfaces. This close contact with the object to be demolished was necessary to get full efficiency. Plastic explosive could be molded and pressed into interstices. Unfortunately, as manufacture was on limited scale and the whole output was required for shell filling and R.A.F. bombs, which had priority, none was available for engineer demolitions. To initiate detonation most explosives require the use of a detonator containing a more sensitive agent, and these were in turn activated by electrical means, or burning and detonating fuse, all of which were carried as equipment for field units.[40]

The Canadian army official historian C.P. Stacey divides the preparation training of the Canadian assault force committed to operation overlord into four phases. The first was preliminary training. It involved, first, a study of the principles of combined

[40] Pakenham-Walsh.253-254.

operations and, secondly, practice in embarkation and disembarkation, scaling obstacles, clearing minefields etc. The second phase was basic training in the mechanics of assault landings. The third stage, assault training by brigade groups, was marked by increase realism. Finally, the fourth and final phase, collective divisional assault training, was carried out concurrently with later exercises on the brigade group level.[41] We will now examine these phases from the viewpoint of the 6th Field Company R.C.E.

The first divisional exercise entitled "Conqueror" began on the 15th and 16th of April 1942. Its plan was to be a general movement exercise for all units of the division. It was designed to give all ranks practice in sudden moves from static locations to battle stations. In May 1942 Exercise "Tiger" took place. The theme was not an anti-invasion one, as most previous exercises in England had been. Kent and Sussex were hostile states and Surrey a powerful neutral. The Canadians formed part of the Sussex force, which was commanded by General Crerar. There was an "encounter battle" and the engineers were fully and properly exercised. Their work began with the preparation of a major demolition belt and went on to minefields and bridging. Bad weather highlighted the fact that a modern army can move only as fast as the roads will let it, a lesson which had been exemplified well enough in 1918. Transport had been cut to the limit; there was good deal of foot-slogging, some hardship and much heavy work.[42]

While the 3rd Division was training, the 2nd Canadian Infantry Division participated in a raid on the German-held port of Dieppe. The raid itself was a disaster that cost the lives of nine hundred men and nearly 2500 were captured: 120 Canadian

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[41] Stacey, C.P. The Victory Campaign: The Operations in North-West Europe, Volume III, Official History of the Canadian Army in the Second World War (The Queen's Printer and Controller of Stationery, Ottawa, 1960)35-36.
[42] Kerry, and McDill,97.

engineers took part in the raid. Men of the 7th Field Company supported the doomed attack. There were no mines found on the beach and the wire was easily breached. However, for engineers some important lessons were noted. Engineer packs which contained explosives caught fire, and the main beach was under intense enemy fire, so it was extremely difficult to work on it and stay alive long enough to complete essential tasks. The need to blow up roadblocks under heavy fire indicated the necessity for "a means of placing heavy wall-charges by "armored, mechanical means". An engineer tank would be developed as a direct result of the Dieppe raid: The A.V.R.E. or "Armored Vehicle Royal Engineers". A whole armoured division would be created around them and the several variants job would be used to destroy beach obstacles to support the infantry and supporting units advance inland.[43]

Training continued on beach clearances well into 1942. At Seaford, an important lesson was learned when Major Jermyn, OC of 6th Field Company, and Company Sergeant-Major Thomas decided to destroy one of the mines found on the beach. The resulting explosion caused the sympathetic detonation of 11 other mines that were buried nearby. Fortunately, no damage resulted and no one was injured by the unexpected blast. Also bridging training was taking place for the 6th Field Company, the unit was proving itself very adept at constructing the Bailey bridge with an average time of 2 hours and 30 minutes from start to finish of an 80-foot span. New weapons research was also taking place; one of the results was the new "Beehive," a cone-shaped charge. The charge, instead of spreading out in all directions, was concentrated in one spot and the full force of the explosion was able to breach at thick wall of reinforced concrete. This six pound explosive would blow a tapered hole to a depth of about 30 inches in concrete, which

[43] Ibid, 97-112.

could be deepened by applying a second and third charge to the same place. A series of beehives, detonated side by side, would "drill" the holes for a bridge abutment or pier demolition at top speed. These holes could be filled with explosive to destroy the actual pier.[44] The Beehive was intended for use on concrete fortifications.

The 3rd Canadian Infantry Division was earmarked for the invasion of Europe and the 6th field along with its sister unit the 18th and 16th field companies would be 'attending the party.' As 1943 dawned, the unit went to Inverarary, Scotland and for the next 18 months the emphasis was on assault training. All platoons practiced the movement of men and supplies up steep banks and up the faces of formidable cliffs. They made assault landings from Landing Craft Assault(LCA's)[45] and fired prepared demolitions on the beaches. All assault craft were manned by the navy personnel and co-operation between the two branches of the service was excellent. On February 17th a new commanding officer arrived to replace Major Jermyn who was now taking a Senior Officer's course. Major B. Sucharov, whose specialty was assault training and combined operations, had been wounded in the disastrous Dieppe raid and awarded an MBE for his efforts.[46]

The next exercise, "Spartan", began on February 28th 1943. This was the most ambitious exercise yet attempted by the Canadian Army. It was to be of army size, against an enemy force made up of British troops. All branches of the army took part, including an armored division. After the exercise, general training was continued in bridging of all kinds, mine-laying and lifting, booby trap techniques, battle schools, assault courses, rifle and Bren gun practice and any other type of engineer work. Another important exercise, called "Curly Kale," lasted from May 9th until May 22nd. Valuable

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[44] Ibid,123.
[45] LCA's were landing craft designed to land 36 troops onto a beach.
[46]Flatt,50.

experience was gained on methods of communication by code and in the use of wireless sets. The troops during this period were outfitted with the new sten guns and No.4 Lee Enfield rifle. The sten had the unfortunate title as the "plumber's nightmare", with a few defects which were mainly in its inefficient safety catch.[47]

On June 1st 1943 another ambitious exercise took place. The plan called for the construction of a 450 foot double-triple bridge over a small river near Shoreham in England. Once completed it would be one of the biggest bridge ever constructed in England. Disaster nearly struck as the sheer weight of the bridge was almost too much for the ground. However, the bridge luckily managed to stay aloft.[48] When building a bridge the most crucial factor is the 'Soil Bearing Capacity', (SBC), of the ground that will support the bridge. If the ground is loose and not compact, then the bridge will sink or potentially fall into the gap. This was also the first time that derrick trucks were used in the construction of the Bailey bridge. The trucks saved time by placing panels of the bridge in position and alleviating the men from doing so.

Assault training also continued in Inverary, Scotland, where the 6th Field Company spent three most interesting weeks from August 9th to the 30th. The whole of the 7th brigade took part in this period of training. The names of the five landing "practice" beaches were hard to pronounce for Canadians, who in 1943 had only recently become familiar with the place names of Southern England. The first task the engineers had to complete as to prepare the beaches with simulated charges to represent shell bursts, booby traps and smoke pots, in readiness for assault landings by the infantry. These exercises became most realistic, with explosions both in the water and on the

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[47] Flatt,52.
[48] Flatt, 52.

beaches being timed to explode practically in the faces of the assaulting troops. The training at Inverary was terminated by a large-scale attack in brigade force on the beach. Everything was used to make it really tough. Sgt. N.Maddy, the explosives expert from the 6th Field Company, and his little band of helpers spent two days in preparing this beach complete with land mines, booby traps and four tons of smoke generators.[49]

On October 13th until October 17th the company engaged in exercise "Pirate", the first full-scale assault landing made with LCT's and LCI's. All three services were to be practiced to the full, with the 3rd Canadian Infantry Division. A group was to land with two field companies, one to get it onto and across the beaches and the other to accompany it inland. On the 12th of October the 7th Brigade, with the 6th and 16th Field Companies, moved to the assembly area. D-Day for the exercise was the 17th. In bad weather, the training assault was made as scheduled, but the air-support plan was drastically modified by fog. Nevertheless the landing phase was judged successful and, in particular, it showed well enough that field artillery could carry out an area shoot whilst seaborne. The follow-up phase on the 18th of October took place only in part. The sea was too rough for craft to beach. Headquarters R.C.E. recorded that "Casualties due to sea sickness were heavy and included the cook."[50]

Various exercises, "Pirate" included, indicated that the heavy demand for engineers during the actual landing and the clearing of beaches left the field companies advancing inland with their brigades far too short-handed. The planners therefore decided to provide each assault division with an additional field company, whose primary role would be the removal of beach obstacles. On November 15th, therefore the 5th Field

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[49] Ibid,54.
[50] Kerry, and McDill, 187.

Company came under command of the C.R.E. 3rd Division for this supplementary role. To close the year the 3rd Division Sappers were given a change from assault training and, company by company, during December, they went north to Thrapston on a bridging exercise. The 6th Field Company found quarters at a pre-war summer resort near a spot named Bramble Chine, close to freshwater on the Isle of Wight.[51]

On February 28th 1944 an interesting event took place when all units of the 7th and 9th Brigades were inspected by General Montgomery, by then Commander in Chief of the 21st Army Group. A very humane gesture was made by the General who observed that the troops to be inspected were without greatcoats or gloves. Even though it was very cold he made his entire inspection in the same dress as the troops, while most of his staff were warmly dressed in wool-lined leather jerkins. In doing so Montgomery made a lasting impression on the men present.[52] Later, new assault steel helmets were received. They offered more protection to the back of the neck and were much more comfortable than the standard type. 6th Field Company had spent the last five years as a Canadian army unit in training and finally in June of 1944 they would be sent into action.

For the D-Day assault the company was to be broken into three parts. HQ and assault party would go in at H-hour. The final exercise before D-Day entitled "Fabius III" took place on May 4th The troops passed assembly to embarkation, and departure procedure was checked. Movement control, in particular, received a thorough shakedown. The 3rd Division, landing on 4th of May at Bracklesham Bay, tested the efficacy of some 400 yards of obstacles. The first assault took place at 0700hrs when the troops landed from their assault boats and proceeded inland to complete their task.

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[51] Kerry, and McDill, 185-187.
[52] Flatt, 58.

However, due to storm conditions vehicles were not landed and the exercise ended early. This exercise was intended to be a dress rehearsal for the actual D-Day landings.[53]

The troops received the new anti-vapor treated battle dress for the assault. Field service caps, were also withdrawn and replaced by khaki berets that were a welcome change for all. Also some 28 sets of body amour were delivered to the troops to be used by personnel in lifting mines. Fifty fighting knives were issued to the troops and were described as a "wicked looking weapon". On 26th of May the assault-force camps were sealed from the outside world and D-Day, North-West Europe, drew perceptibly closer. As June 5th approached the tension on the men was obvious. Every man thought to himself, "What will tomorrow bring?"[54]

[53] Kerry, and McDill, 195-196.
[54] Flatt,.63.

Chapter Three: The Assault

"I didn't last long on D-Day, but I will never forget my baptism of fire. I'm sure that those that were there don't need reminding, but perhaps postwar Canadians need to know more about it."- Sapper Ralph Spencer No.2 Platoon, 6th Field Company, R.C.E [55]

The 6th Field Company's primary mission on D-Day was to provide engineer support to the infantry landing on Juno beach. Only the company's No.2 platoon was assigned to the initial assault. It was detached and placed under operational control of the Canadian 7th Infantry Brigade, which landed in the Courselles-Sur-Mer area of Juno beach. 6th Field Company's secondary mission consisted of clearing minefields for the infantry once off the beach. They were also to provide an engineer party to prepare for destruction several bridges in the Graye-Sur-Mer area.[56]

Opposing the Canadians in the Courselles area was the 6th Kompanie Grenadier Regiment of the 716th coastal division. Allied intelligence deemed this division a low quality formation by allied intelligence consisting of very old and very young soldiers Included in its ranks were Osttruppen (Russian prisoners of war co-opted into the German army). The division's total complement was 7,771 men. The 716th division was held in disdain by allied intelligence officers, who claimed that the division was only 40% combat effective. This, unfortunately would prove to be a false assumption. The 716th division was quite capable of offering a determined fight from fixed positions. In many cases the soldiers would fight to the death rather than surrender even when their positions were surrounded.[57]

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[55] Portugal, Jean E *We Were There The Army-6 A Record for Canada,* Ontario The Battered Silicon Dispatch Box, 1998 2752

[56] Royal Canadian Engineers, 3rd Canadian Infantry Division Operation Order No 1 Codenamed "Overlord"

[57] Zuehlke, Mark, *Juno Beach Canada's D-Day Victory June 6th 1944*, (Vancouver,Toronto,Berkeley Douglas & Mcintyre,1999),294

The soldiers of the 716th were deployed along the coast and encased in a system of linear defences arranged in strongpoints. These strongpoints, or Wiederstandneste, consisted of pillboxes and open machine gun positions with emplacements for 75mm guns. The beach defences were covered by these strong points with interlocking fields of fire. Included with these strongpoints were protective wire and minefields. Much of the material used in constructing the beach obstacles was recycled from old border fortifications of the occupied countries. Czech hedgehogs (jagged steel stakes), curved girders from the Maginot line and even steel gates from the Belgian fortresses were used.[58] These defenses would remain largely unscathed by the naval and air bombardment that was to precede the Canadian landing. During and after the war the navy received much flak concerning its perceived inability to destroy the Atlantic Wall. Recent scholarship suggests otherwise. Daniel Malone in his Masters thesis at the University of New Brunswick in 2005 argues that the navy only ever promised partial neutralization of the enemy defenses, at no point was complete destruction of the defenses an objective.[59] Regardless of the debate on the navy's bombardment, the stage was set for the 6th Field Company which would soon have to face the wire and hot steel of Juno Beach. However, 6th Field Company were not the only engineers present on Juno beach.

The overall assault of Juno beach was to be carried out by two Canadian infantry brigades, the 7th and 8th, with the 9th in reserve. The engineer component consisted of four field companies that would support the three infantry brigades. 6th Field Company was

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[58] Saunders, Tim *Juno Beach: 3rd Canadian & 79th Armoured Divisions,* (Montreal & Kingston: McGill-Queen's University Press, 2004),47.
[59] Malone, Daniel, "*Breaking Down the Wall: Bombarding Force E and Naval Fire Support on Juno Beach,*" unpublished M.A. thesis, University of New Brunswick, 2005,2.

attached to the 7th Canadian Infantry brigade.16th Field Company from Montreal was attached to 8th brigade, and the 18th Field Company from Hamilton, Ontario was assigned to the 9th brigade. 5th Field Company from Kingston, Ontario was attached to the 3rd Canadian Infantry Division because senior officers felt that due to high volume of obstacles the normal divisional allotment of three Field Companies would be inadequate.

The 5th Field Company, with a platoon of the 18th Field Company under its command, had the difficult task of clearing the beach of under-water and other landing obstacles. Also attached, were elements of the 262nd Field Company Royal Engineers and 19th Field Company Royal Engineers with 36 angle dozers and operators from the 86th Mechanical Equipment Company Royal Engineers. These units operating under the title of "Landing Craft Obstruction-Clearance Unit" were to land at H-Hour with the DD(Duplex-Drive) tanks of the 1st Canadian Hussars regiment. The plan called for this unit to clear a modicum of obstacles enough to reduce casualties to the landing craft following behind during that short five minute window before the assault forces landed at H+5 minutes. On the 3rd Canadian Division's front the object was to clear four landing zones, one of six hundred yards, two of four hundred yards and one of two hundred yards width, by H-plus 45 minutes.[60] This task fell to the engineers.

The 16th and 6th Field Companies had their normal role of helping the infantry advance once they landed. Each field company would supply a reinforced platoon that would be distributed among the assaulting infantry companies usually in small sub-sections of 5-6 engineers. All of these Canadian units listed consisted of the engineer walking ground element for the initial landing. The armored engineer support for the

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[60] Kerry, A.J.; and McDill, W.A. *History of the Corps of Royal Canadian Engineers*. Vol. 2, Ottawa: The Military Engineers Association of Canada, 1962.265-266.

landing would be provided by the "Armored Vehicle Royal Engineers"(AVRE) of the British 79th armored division. The 5th Assault Regiment, R.E. was tasked with Juno beach sector and consisted of two assault squadrons: the 26th and 80th.The 26th was to support the 7th Canadian Infantry Brigade and the 80th the 8th brigade. The job of the AVRE's was not to engage enemy targets immediately on landing, but to open the exits off the beach using their specially designed equipment. The AVRE's carried attachments most suited to the clearance or crossing of obstacles likely to be encountered in a particular part of the beach: fascines or bridges for crossing ditches and sea walls, 'Bobbins' for covering patches of mud or soft sand, and 'Petards' for breaching concrete obstacles and reducing pillboxes etc. To these were added the armored angle dozers of mechanical equipment companies.[61] The DD tanks of the 1st Canadian Hussars, which were to lead the assault on Juno beach, would engage the defenses while the AVRE's cleared the exits. However, on June 6th, due to the fact that no plan survives first contact with the military, DD tanks and AVRE's landed at varying times, usually to the detriment of the foot soldiers who would suffer grievously. These 'delays' due to the sea conditions would hamper operations on Juno beach. The immediate effect was that individual engineer units would inherit tasks which were supposed to be done by the armored vehicles. 6th Field's No. 2 Platoon's experience demonstrated this occurrence and what it cost in blood to the engineer and infantry forces.

On May 15, 1942, the 6th Field Company's war diary in England recalls receiving "two new pieces of equipment" in camp: Lieutenant Neil ('Tiger') Mustard of Toronto, No. 2 Platoon's new officer, and their first, brand new American jeep.[62] It was Lt.

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[61] Pakenham-Walsh, 338.
[62] 6th Field Company R.C.E. War Diary May 1942.

Mustard who would lead No. 2 Platoon's assault party on June 6th, assigning six of his Sappers to each of the assaulting platoons of Alpha and Bravo Company of the Regina Rifles, and the same for B Company of the Royal Winnipeg Rifles. Lt. J. Neil Mustard was a civil engineer and graduated before he enlisted. He recalls:

> Civil Engineering came about in history in a different way as opposed to military engineering. Military engineering started at the Royal Military College in Kingston, Ontario and those fellows graduated as military engineers. Now they don't have as much theory as civil engineers, but they do have more military theory and are more military oriented. So when a war comes along these army career officer types are all in the peacetime army and all R.M.C. officers. For me personally I joined as a engineer, I received a few months training 3 months at Brockville, Ontario and 3 months at Petawawa and I'm supposed to be a military engineer. Sure, I can design a bridge better then these guys can. But we are not designing bridges. We're just throwing the damn things together like a mechano set.[63]

On June 6th 1944 Lt. Mustard was 28 years old and was one of the youngest men in the company, though one of the older officers. On June 5th men of 6th Field Company and the rest of 3rd Canadian Infantry division were waiting patiently on troopships in the English Channel cruising closer to the Normandy beach.

0400hrs June 6th 1944

The war diary of the Royal Winnipeg Rifles recalls that tea and a cold snack were served as breakfast to all in the Battalion. Few were able to keep their meals down due to the rough sea. Patiently, each man waited for his serial section to be called to board his respective landing craft.[64]

At approximately 05:15 A.M. Lt. Mustard recalls:

> All Landing Craft Assault or LCA's were now manned and being lowered into the turbulent English Channel. "We were attached with the infantry companies and dispersed on different ships. "They loaded us into LCA's hanging over the side of the mother ship, and each LCA hanging had 25-30 men in an infantry platoon

[63] Portugal, 2707.
[64] Royal Winnipeg Rifles, War Diary, June 1944.

> plus the six sappers for each. The infantry were just kids, 17-20. They didn't have any training except infantry training. I landed with the Regina's and my Sgt F.R. Emmerson landed with the R.C.E. group with the Winnipeg's. So we were hanging on the ship before H-hour and there was a delay. The craft was rocking back and forth on the side of the mother ship and we were crouched down with a canvas cover over us. It was pitch black and some of the guys were sick. It was not very pleasant. Half the guys were sick, and the ones who weren't, wished they were dead. It seemed as though we were hanging there for an hour, though the book says 10 minutes. But I'm sure it was more than that.[65]

The choppy waters of the English Channel were the main reason for the delay of D-Day that was originally to commence on June 5th not the 6th.[66]

One of Lt. Mustard's soldiers, Sapper Ralph Spencer, of Chilliwack, British Columbia trained with the 6th Field Company, R.C.E., for three years, but had only one day in Normandy. Spr Spencer landed with the Engineer assault party No.2 Platoon, attached with Alpha Company of the Regina Rifle Regiment. Spr Spencer would be wounded during the assault and earn the Military Medal 'for extraordinary valor during the action on the beach.' Spr Spencer, one of the few surviving non-commissioned No. 2 Platoon veterans, was able to share his experiences later.

> We were well briefed, the mosaics of our 3rd Division Juno beach were compiled and reproduced from photographs with incredible clarity. We were able to see wagon tracks where mines had been delivered onto the beach; the faces of the enemy were clear as they had looked up at the Allied planes photographing the area. Mike Green Beach was of special interest to the engineers as this was where we would land shortly in front of a large gun of unknown caliber, and supported by machine gun positions, heavy and light. There were also concrete trenches for riflemen. These elaborate positions were secure in the minds of the Germans as they were behind huge iron gate obstacles called 'element C' and would normally be under water depending on the tide. Our Engineers were very interested in these and the Hedgehog (tripod steel obstacles) with shells on top of them as the mines and booby-traps required the attention of a trained sapper to neutralize them. This would have to be done while exposed to the MG and rifle fire of the defenders.[67]

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[65] Portugal, 2708.
[66] Pakenham-Walsh, Maj-Gen R.P. *The History of the Corps of Royal Engineers*. Vol.IX, Chatham: The Institution of Royal Engineers, 1958.331.
[67] Portugal, 2736.

The Reginas and the Winnipegs with the attached Canadian engineers were to face the Wiederstandnestes (WN 29-31) in the Courselles sector. The Winnipeg Rifles would run into WN 31 with Sgt Emmerson's Sappers attached. Lt. Mustard and the Regina's would come up against WN 29. The engineer sub-sections main job was to use their equipment and demolition charges against any concrete gun emplacements that were hiding enemy weapons. This extra gear took a heavy toll on the Sappers, whose average ages were 25-35. The engineers were outfitted with normal gear plus engineer equipment, which included General Wade charges[68], Beehives and detonators. A sapper carried between 65-70 pounds of gear on D-Day and the sight of this overwhelming amount of gear made the Sapper a prime target for any enemy rifleman or machine gunner who assumed the load was vital to the progress of the assault.[69]

Capt R.T. Miller 2nd in command of 6th Field Company, R.C.E. remembers the events of D-day:

> The main activity of the company on D-Day was carried out by No.2 platoon commanded by Lt Neil Mustard. I was more concerned with administration and carrying out the duties of the officer commanding when he was not there. Miller explains that No. 2 platoon that day consisted of the following: Lt Mustard, Sgt F. Emmerson, L-Sgt Meek, L-Sgt Stewart, Cpls Duncan, Wilkinson, Chapman, 4 L-Cpls and 39 Sappers. An NCO and five Sappers were with each platoon of the Regina Rifles and the Royal Winnipeg Rifles. During the landing, 3 NCOs and 9 Sappers were killed; 3 NCOs and 12 Sappers were wounded: and 3 Sappers missing. Some of these men were wounded and could not escape the incoming tide because of the heavy packs they were carrying on the their backs. To the best of my knowledge, not one demolition charge was set off. The remainder of the Company was responsible for clearing the roads of any mines and for road repair.[70]

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[68] General Wade charges were arched linear explosive charges designed to cut concrete obstacles.
[69] Portugal,2733-2734.
[70] Portugal,2753.

07:45hrs Nan Green Beach Royal Regina Rifles

The initial landings took place a little later than the envisioned 07:35hrs H-hour. The British official history claims that this was due to the presence of rocky reefs off-shore and then as a consequence the outer obstacles stood in deeper water.[71] Inside the LCA heading for Nan Green beach Spr Spencer's engineer sub-section, loaded with weapons and explosives were positioned three-quarters of the way to the rear of the craft. This permitted the rapid exit of one Bren gunner of the Reginas and his number two with two cases of ammo and two riflemen to protect the right and left flanks of the craft. For a first hand account of what exactly happened on the beach we turn to Sapper Spencer, who gives us a chilling account of his experience:

> At approximately 150-200 yards offshore, the ramp of Landing Craft Infantry #1044 or #1048 dropped with a thump.[72] MG fire was pouring into the opening where the door had been. Everyone stood up. There was no famous battle cry as seen in the movies. Capt Shawcross and Lt Heisler of the Regina's carrying their rifles were first out, followed by Sgt Bill Williams and Sgt Schneider also of the Regina's. The remainder began to rush out of the craft in the direction of a large gun emplacement and several MG positions we hadn't expected.
> There was no hesitation. Men were hit and fell down in the craft; others fell into the water or on the beach.
> In front of the engineers group, Cpl Don Moorhead of the Regina's, who was directly in front of L-Cpl George Cooper leading the Engineers' sub-section, was killed by MG fire as soon as he stood up. His body and that of others absorbed a furious burst of MG fire which spared many of us Engineers in the beach landing. In the scramble to get out of the LCA, I took care not to step on Cpl Moorhead's body, as well as those of others who were down on the ramp or in the water. Nevertheless, we of the 6th Field were to pay a very high price that June day.[73]

Prior to the Reginas landing the DD tanks of B Squadron of the 1st Hussars had successfully landed on the beach 10 minutes prior to the assault infantry. Of the 19 DD tanks that were launched 14 made it to the beach in good order. Immediately, fearing

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[71] Pakenham-Walsh, 347
[72] Spr Spencer's R.C.E. group was dispersed with the Reginas on either LCA.
[73] Portugal,2742.

their own survival, the tanks pounded the concrete emplacements that dominated the landing site before attacking the enemy defenses raking the assault forces. The presence of the tanks already on the beach gave great heart to the Regina Rifles assault companies.[74] Even so, as Sapper Spencer describes, the beach was still covered by German small arms fire and heavy weapons fire:

> My designated job was to immediately follow L-Cpl Cooper and get into position and place my General Wade charge on any gun position that was giving us trouble. A burst of MG fire took the forestock off my rifle and passed through the front of my battledress blouse, at the same time letting the air out of my flimsy Mae West which had been almost deflated during the run-in. My ammo pouch was almost chewed up destroying some choc bars and cigarettes. Thankfully my Wade wasn't hit.
> I made it some yards past the 75mm manned by Gefrieter Karl Link, (Reg No 4222). We were in so close that the 75mm could not be depressed sufficiently to pour fire into our LCAs, but the MG 42s and others caused a lot of trouble. I managed to mount the four-foot embankment and pass the 75, but my leg gave out as I was still carrying the heavy breaching charge and other equipment which was part of my gear. At the rear of the 75 I met a Regina Rifleman who was also wounded. A 36 hand grenade was tossed into the open back door of the bunker-a bad mistake on the enemy's part having the rear door open-in fact it didn't even have a door. Spencer had to roll bank down the embankment stating that he "could go no further".[75]

Of the 31 engineers attached with the Regina's four were killed and 11 were wounded. Tank support helped a great deal and German resistance gradually began to slacken. The AVRE's of 26th assault squadron, R.E. were slow to arrive, but when they did the flail tanks of the 22nd Dragoons beat paths up through the dunes and by 09:00hrs two exits were opened from the beach.[76] The Regina's were lucky that their DD tanks

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[74] Ford, Ken, *Battle Zone Normandy: Juno Beach,* England: Sutton Publishing, 2004.42.
[75] Portugal, 2744.
[76] Ford, Ken, *Battle Zone Normandy: Juno Beach,* England: Sutton Publishing, 2004.44.

reached the beach ahead of the infantry and in larger numbers. This fortunate event would not repeat itself for the Winnipeg Rifles.[77]

07:49hrs Mike Red Beach Royal Winnipeg Rifles

Only two of the eighteen engineers of No.2 Platoon attached with the Winnipeg's would make it through D-Day without being killed or wounded. Their commander was R.C. E. Lance-Sergeant William Stewart attached to 12 Platoon, Bravo Company of the Royal Winnipeg Rifles. Unfortunately, Lance-Sergeant Stewart did not survive the day to tell his story. Stewart was from New Westminister, British Columbia, a forty three year old longshoreman and carpenter who worked for the Shipping Federation of B.C.[78] Friends described him as a quiet man but one who could get angry when anyone incurred his displeasure. He was a close friend of Lt Neil Mustard, the CO of No.2 Platoon. Stewart was in charge of the 2nd half of No.2 Platoon engineers attached with the Royal Winnipeg Rifles. He was found mortally wounded inshore from the beach with his Sten gun beside him and four or five dead German soldiers lying in front of him. Sergeant Stewart died of his wounds later that evening.[79] In order to have an accurate picture of the events of the Winnipeg's landing we must explore their own history as the engineer history of this seminal event is for obvious reasons incomplete.

The battle for WN 31 was a hellish affair with Engineers and Royal Winnipeg Rifles alike in a fight for their lives. Bravo Company of the Royal Winnipeg Rifles lost 75% of their men that morning. The Winnipegs and the engineers landed almost in front of WN 31 and suffered accordingly. In front of them the Canadians faced four concrete

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[77] Stacey, C.P. The Victory Campaign: The Operations in North-West Europe, Volume III, Official History of the Canadian Army in the Second World War (The Queen's Printer and Controller of Stationery, Ottawa, 1960)105.

[78] Lance-Sargeant Stewart Personnel File

casemates and fifteen machine gun positions. Tank support in the form of DD tanks failed to arrive and the engineers and the 'little black devils' faced exactly what the 2nd Canadian Infantry division faced at Dieppe two year earlier. Unsupported Canadian Infantry had to attack an alert enemy, secure in concrete positions, dominating the beach. On Mike Red, in a manner similar to the US infantry's experience on Omaha, the Winnipeg's suffered a steady stream of casualties.

German teenager Grenadier Hans Weiner manning at machine gun at WN31 describes a glimpse of the horror:

> The first Tommies jumped into the sea, which was quite shallow. The bullets hit them and their boats to good effect and I was a little surprised to see them falling- I don't know why. Never having been in a battle before it did shake me to be hurting those men although there were enemies. Even then in my naivety, I thought I was only hurting them.[80]

One of the 'hurt' victims was Sapper Ray Sparkes, from Richvale, Ontario, who was 22 years old when he was killed by MG fire. He had just been married on the 19th of May. Major Murphy the 6th Field OC spoke of Sparkes as a reliable and hard working soldier. He was a trained carpenter and during the assault he desperately tried to crawl forward from where he fell as the first burst hit him. Unfortunately the MG kept firing at him until he stopped moving. Spr Sparkes was described as a quiet, friendly person and did his best to close with the enemy after being hit several times.[81]

In the ensuing chaos and with rolls of concertina wire two feet high and thirty feet across the infantry became trapped. According to Rifleman John Maclean an unidentified engineer threw himself on the barbed wire so that the Winnipeg's could walk over his back and reach the safety of the dunes beyond. In other areas Bangalore torpedoes not

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[80] Saunders, Tim *Juno Beach 3rd Canadian & 79th Armoured Divisions,* Montreal & Kingston McGill-Queen's University Press, 2004 93

[81] Personnel file of Spr Sparkes

lost in the channel were used to blow a gap in the wire. DD tanks were late to arrive so Bravo Company Sergeant Major recalls that 'The sand dunes were reached, and the pill boxes taken by sheer guts and initiative of the individual'. The battalion diary remarked grimly, "The bombardment having failed to kill a single German or silence one weapon, these companies had to storm their positions 'cold'-and did so without hesitation."[82] When the DD tanks from Alpha Squadron of the 1st Hussars did arrive, ten of them evaded destruction and cruised up and down the beach destroying fortifications. However, when the men started to move inland the tanks could not follow, as the AVRE's had not yet arrived to create exits off the beach. At the end of the two hour battle only Captain Gower the OC of Bravo Company, and twenty-six men out of 140 who landed were still on their feet.

08:00hrs 8th Brigade Sector

Meanwhile on 8th Brigade's front the 16th Field Company engineer sub-sections were embedded with the North Shore Regiment and the Queen's Own Rifles. 16th Field Company landed with the first wave of infantry, but the AVRE's were late to arrive as were the tanks to support the assault. 16th Field would be hard pressed to replace AVRE's but their orders were to support the infantry advance whatever the cost. 16th Field suffered heavy casualties while attached to the Queen's Own Rifles. As members of Dog Company observed, one of the engineer-subsections was cut down by machine gun fire, and the sea was red with their blood.[83] The AVRE's of the 80th assault squadron R.E. that did land faced a large minefield and suffered many casualties. The exit lane had to be

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[82] Stacey, C.P. The Victory Campaign: The Operations in North-West Europe, Volume III, Official History of the Canadian Army in the Second World War (The Queen's Printer and Controller of Stationery, Ottawa, 1960)104.
[83] Saunders,66.

cleared by hand by members of 16th Field using their Polish mine detectors. Engineers attached with the North Shore Regiment fared little better as their armor support was delayed and they had to assault WN 27 near St-Aubin with the North Shores alone.[84] Once they landed on the beach DD tanks and AVRE's dealt with the larger-caliber guns but it was the lighter weapons that caused the bulk of the damage to the New Brunswickers. Engineers from 16th Field managed to place Bangalore torpedoes under the wire and blew holes for the North Shores to struggle free, but it was a hard fought battle.[85]

5th Field Company, with its attached units spread over the 7th and 8th Canadian Infantry Brigade sectors, were rapidly trying to dismantle underwater obstacles using explosives and mechanical means. They arrived on Mike Red beach with their equipment at approximately 08:00hrs in the 8th brigade sector. Two sections of the 18th Field Company managed to clear a 50-foot gap in the obstacles in 30 minutes, working in over four feet of water. However, the tide was rising too rapidly for anything else to be accomplished. The sections of the 5th Field Company on Mike Red beach were no more successful. Major Frank McTavish, commanding the 5th Field, landed with one of his platoons at H-hour on Nan Red beach near St-Aubin. McTavish personally arranged for a tow rope to guide his men through the ten feet of water to the shore. A few minutes later with his radio set gone he found the beach master and set his men to work on 1800 yards of beach. For his heroism he was awarded the Distinguished Service Order.[86] However, despite acts of heroism, the clearance of obstacles both by towing and by demolition

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[84] Milner, Marc. D-Day to Carpiquet: The North Shore Regiment and the Liberation of Europe, Fredericton New Brunswick. Goose Lane Editions, 2007. 49.
[85] Ford, Ken, *Battle Zone Normandy: Juno Beach,* England: Sutton Publishing, 2004.52-53.
[86] Fowler, Robert T. *Valour On Juno Beach*, Ontario, Canada: General Store Publishing House, 1994.33-34.

charges was defeated by the rapidly rising tide. The engineers turned to removing the fuses of the enemy mines and shells before efforts had to be abandoned. On "Nan Red" 5th Field Sappers came ashore to immediate small arms fire and had to take shelter under the cover of the sea wall due to the fact that most of the AVRE's and all of the DD tanks were still at sea.[87]

09:00-10:00hrs

Casualties littered the Juno beach area and with the tide higher then expected the beach became crowded with troops that were unable to advance off the beach. The exits which were primarily the responsibility of the 5th Assault Regiment, Royal Engineers with their AVRE's and had difficulty clearing the obstacles until the tide receded.[88] Spr Jack Fleger belonged to No. 3 Platoon, 6th Field Coy, R.C.E. recalled that:

> My group #3 platoon came in one hour after H-hour on June 6th. About six of us were to have a special job of blowing a bridge Al Jolson[89]style at Caen when it was to be captured that first day. However, it wasn't taken till over a month later. When I was coming into the beach at Courselles, I had water coming up to my neck. Both rifle and mine detector were water proofed and I held them above my head making my way in. When we landed, we had our 'black' (cork to blacken our faces and hands) with us, along with everything to send the bridge sky high. It was going to be a delicate job. It had to be done at night, in the dark, and the Germans would be sitting across the river with the correct range.[90]

6th Field's No.1 Platoon landed at approximately the same time as No.3 and was immediately tasked with clearing mines from the beach exits. They earned high praise from the 77th Duke of Lancasters Medium Regiment Royal Artillery. A Sgt Harthill explains that "those R.C.E. boys had cleared the area in front of us and was cordoned off

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[87] Kerry, and McDill, 266-267.
[88] Ibid, 106.
[89] Al Jolson was a highly popular singer, actor and comedian who performed shows for the troops for free during the war.
[90] Portugal,2726.

with white tape showing the safety zones; and the mines were in neatly stacked piles. Those Canadian Engineers surely saved our lives."[91]

14:00hrs

Spr F.W. Gregg 6th Field Coy, R.C.E. was a Sapper with the headquarters coy of 6th Field. He was driving an armored scout car for the landing in the Courselles beach area on D-Day where the 6th Field was supporting 7th Brigade:

> We had sat off shore from 8 till 2 P.M. before we were able to disembark from our LST. The Engineers job was to get in first and clear the beaches as much as possible. By the time I came in the early afternoon, there was very light fire and the beaches had been fairly well cleared. We were involved in quite the traffic jam when we landed, however mine was quite a powerful vehicle and I managed to get us out and away. My scout car was armored and I could see through a little port hole window and as I came in, all I saw was a big 4-storey house. The car had a Bren gun with turret and the gunner was Cpl Bill Weston from Montréal. As a driver of a scout car, my main job was to transport recce officers for reconnaissance to decide where it would be necessary to put in bridges. In addition, the Engineers had the usual mine fields to lay and lift. We usually had a covering group of infantry so it wasn't as tough on us as it was on some units. But even when under fire, R.C.E. companies had to keep on with the work[92]

17:00hrs On route to the village of Reviers

Corporal Garbutt Chapman of the 6th Field Company, with a half a section of the remaining No.2 platoon, advanced with "B" Company of the Regina Rifles in the late afternoon of 6 June. South of the village of Reviers, the Reginas Number 10 platoon was engaged by light machine-gun fire and pinned to the ground. Heavy mortar fire from an opposite hill followed, and Corporal Chapman, from his position at Platoon Headquarters, perceived that these mortar bombs had caused causalities in his section. Disregarding the danger from shrapnel, he at once moved back over very open ground to where his men were lying, and with great coolness rallied them, withdrawing those not

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[91] Ibid,2758.
[92] Portugal,2719.

wounded to safety. Corporal Chapman would later be awarded the military medal for this action.[93]

22:00hrs

6th Field Company spent most of the night of D-Day laying protective minefields for the infantry who were awaiting the inevitable German counterattack. No.1 and 3 platoons linked up in Reviers for the night while the remnants of No.2 platoon remained embedded with the Reginas and Winnipegs. This ended June 6th, the day of days for the Allied armies. It also ended the culmination of almost three years of training for the 6th Field Company. The war would continue with them playing important roles again, but D-Day was seen as the pivotal point by many members.

Lt Mustard reflects on the events of the day:

> I had strong reservations about the plan of sending older R.C.E. men who had been pre-war tradesmen in with younger, assaulting troops on D-Day, my superiors thought otherwise. 6th Field's job that day was to get rid of mines and other obstacles to aid the landing craft and the landing troops, coming in, and to clear the beaches of mines. The result was 31 of my 48 men killed, wounded or missing, a number gone before they could even make the shore.
> The weather was a severe handicap with waves much higher than had been anticipated. The 10-minute delay was ordered for the scheduled H-hour. During this period the tide came in very rapidly. The whole D-Day thing, to my mind, was done incorrectly. And I got into trouble about that. All my fellows were technicians, or should I say tradesmen. You might in an Engineer's platoon have 6 carpenters, 3 tinsmiths, 2 welders, 2 blacksmiths, 6 electricians, 5 plumbers etc. These people were tradesmen and not as young as the infantry. They were usually 25-35 years old and they were valuable people. The R.C.E. soldier's were much older then the infantry and were unable to keep up with the young infantry attackers. The engineers were also more adept to arming/disarming mines and beach mines rather than acting as assault troops. To make a long story short, it was a bloody slaughter for No. 2 Platoon! [94]

At the end of D-Day the Chief Royal Engineer of the 3rd Canadian Infantry Division, Lt-Col R.J. Cassidy, reported 50 engineer casualties killed or wounded,

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[93] Fowler,46.
[94] Ibid,2707.

including two officers, one of which was 16th Field Company's commanding officer who was wounded by three sniper bullets. Major T.R. Murphy, the officer commanding of 6th Field, was asked to prepare his assessment on the D-Day landing from an engineer perspective. Murphy characterized the crossing of the channel as 'sea-sick' and relays his dismay with how his troops were cut down on the beaches without ever being able to fulfill their role as "assault pioneers".

> This seems a suitable place to register the conviction that in any future assault landings, the so called "assault teams" of sappers should be eliminated. They cannot gain the objective under the covering fire of the infantry alone, and if tanks are provided for close support, then these can themselves deal with the strong points direct. It was rather painfully impressed on this unit that while sustaining 22 casualties in one platoon on the beach alone, this price was paid without the assault teams once being employed as such.[95]

D-Day ended with the Canadians firmly entrenched on the Juno beachhead. The engineers of the 3rd Canadian Infantry Division had paid a high cost but nevertheless helped the infantry gain their objectives. At many crucial points during the assault it was the engineers on the ground that cleared the way when many of the armored vehicles had been knocked out due to enemy action or had not landed in time. Those scattered engineer sections had to contend with enemy fire at the same time they were trying to work to clear obstacles for the infantry advance. Their tireless efforts in the face of great terror speak to their motto of always being 'First in, Last out'.

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[95] Report on the D-Day Assault for the C.R.E. of 3rd Canadian Infantry Division June 17th 1944.

Conclusion

The Sappers of 6th Field Company R.C.E. who landed on the shores of Juno beach had trained as engineers for nearly 5 years prior and trained specifically for D-Day since early 1943. 6th Field Company's primary mission was to support the infantry landing on the beach. In this, they succeeded, despite the fact that 70% of the men who went ashore in the initial wave became casualties. Upon landing the engineers found the beach defenses intact and without cover from DD tanks were forced to work out in the open often under murderous German fire. The lesson of Dieppe to include 'an engineer tank' in any possible assault had been absorbed and was not in question. The problem was the late landing of these special vehicles due to weather conditions. In short, this situation meant that the engineers had to complete tasks that would have been completed by the tanks or AVRE's during the crucial first minutes.

In addition to the tanks being late on most sectors the engineers had to contend with being significantly older than their infantry counterparts. The young infantry could run and fight more easily on the beaches then their Sapper friends. Also the engineers were overburdened with equipment on top of the normal allotment of gear. They had to carry specialized charges and additional equipment on D-Day, adding to their movement problems. This, coupled with the fact that they landed amongst beaches teeming with defenses untouched by naval or air bombardment and with little initial tank support, meant that objectives would have to be taken 'cold', thereby increasing casualties. The infantry with only engineer support initially were unable to silence bunkers as quickly as they should have been.

However, the point of this case study was not to place 'blame' for the high casualties of the assault and not to get caught in playing the 'if' game. The weather was a significant detriment to the landing operation but could hardly have been 'controlled'. The point is to examine the historical gap of engineers in the Canadian historical narrative and to explore their importance on D-Day. Engineers have been crucial to the mobility of armies for hundreds of years and D-Day was no different. The infantry needed engineers to advance their way through the beach obstacles. Specialized tanks were a great asset but in most military operations it is the 'boots on the ground' that take and hold ground the other arms simply help the infantry achieve this.

6th Field's casualties were terrible on D-Day and to my mind would have been mitigated by the timely arrival of DD tanks. However, this was not the case and the unit suffered terribly. Allied planners expected the casualties on D-Day to be much higher then what they turned out to be. This is not an appeal to mitigate 6th Field's losses but to put the bigger picture in perspective. Many of the leading infantry companies who landed suffered very high casualties, but this was not a surprise due to the type of defenses engaged. In any military operation human lives are used to take objectives, the trick is to use only as many as 'necessary'. As one can imagine that is a subjective business and the use of proper tactics and training come to mind. However, on D-Day tactics and training could only account for so much. Allied soldiers landed out in the open in full range of German guns but this was the price to pay to gain a beachhead on the European continent. I have no doubt that the infantry and engineers received the best training Western armies were able to provide prior to D-Day. The tactics of the invasion were second to none, so what went wrong? In the end little went 'wrong' in the extreme

negative use of the word. Military operations, despite all the planning and training and logistical forethought are still subject to 'Murphy's Law', that anything that can go wrong will go wrong and the channel weather was no exception. Engineering units like 6th Field were invaluable members of the combat arms team. Yet often in the histories of the Second World War engineers are paid lip service while the infantry and armor and artillery are given far more attention. They provided the mobility so crucial to armies regardless of era. It is this simple fact that is being missed in the historical narrative and it is the hope that further studies on engineers will be initiated to study this very important aspect of military operations.

6th Field Company R.C.E., the oldest military engineering unit in Canada, in company with other engineering units from across the country, landed on Juno beach on June 6th 1944 and did their part to help advance the invasion. Despite the horrendous casualties the objectives were taken and members should be proud of their actions on that day. They all deserve our respect but at the very least our recognition.

Chimo![96]

[96] Chimo- is from the Inuktitut greeting saimo, and translates to "Hello, goodbye, peace be with you" and is the official greeting of Canadian Military Engineers.

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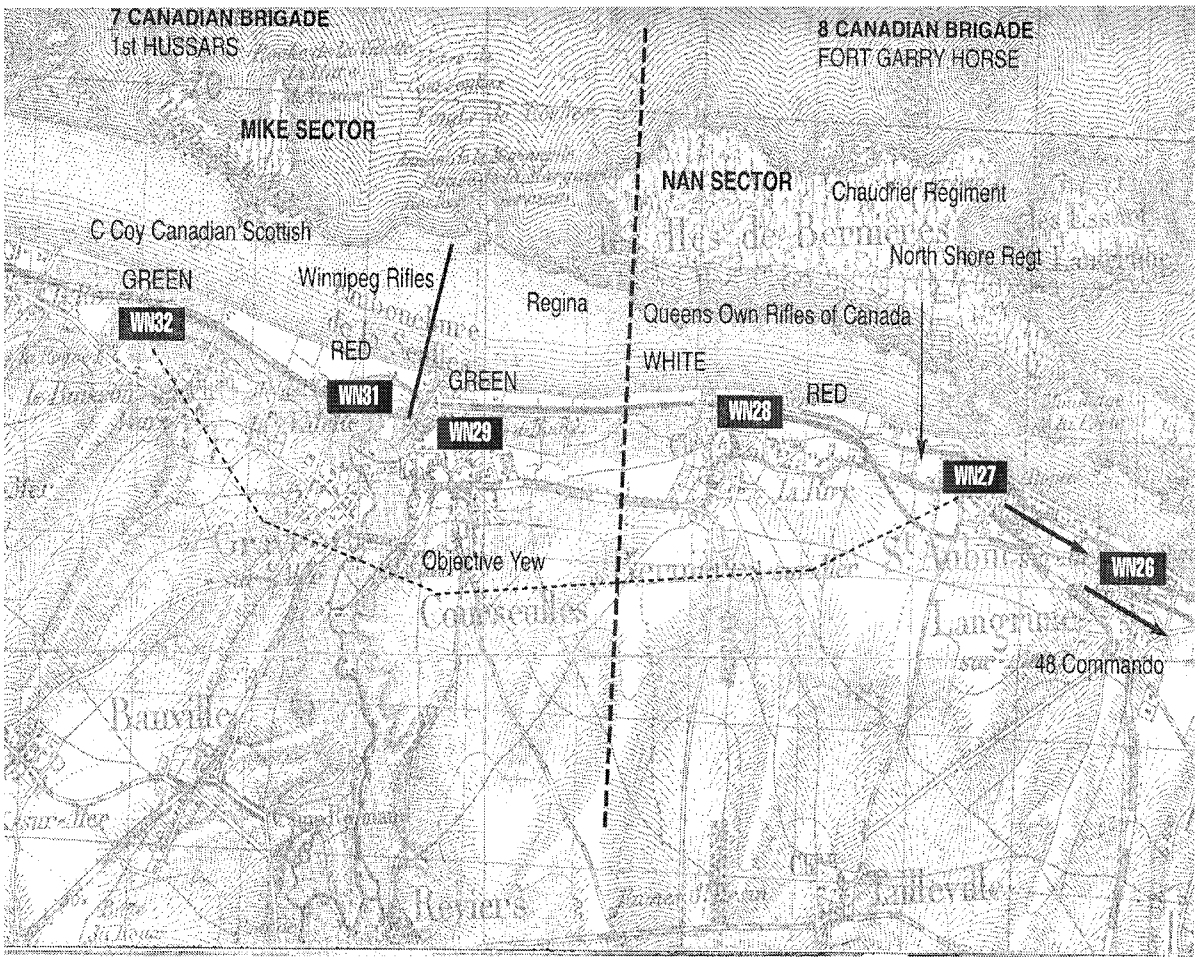
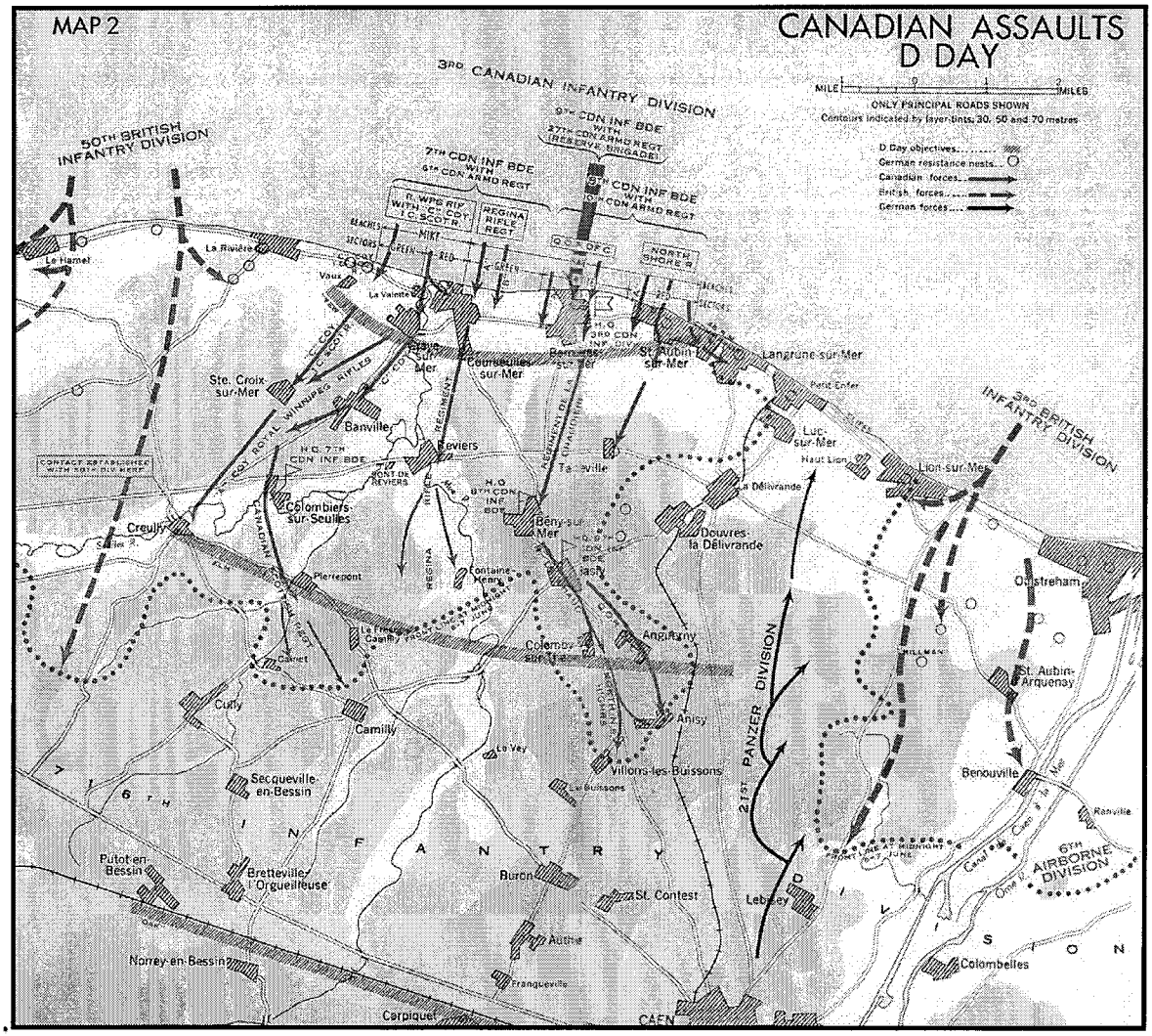
APPENDIX A
MAP 1[97]

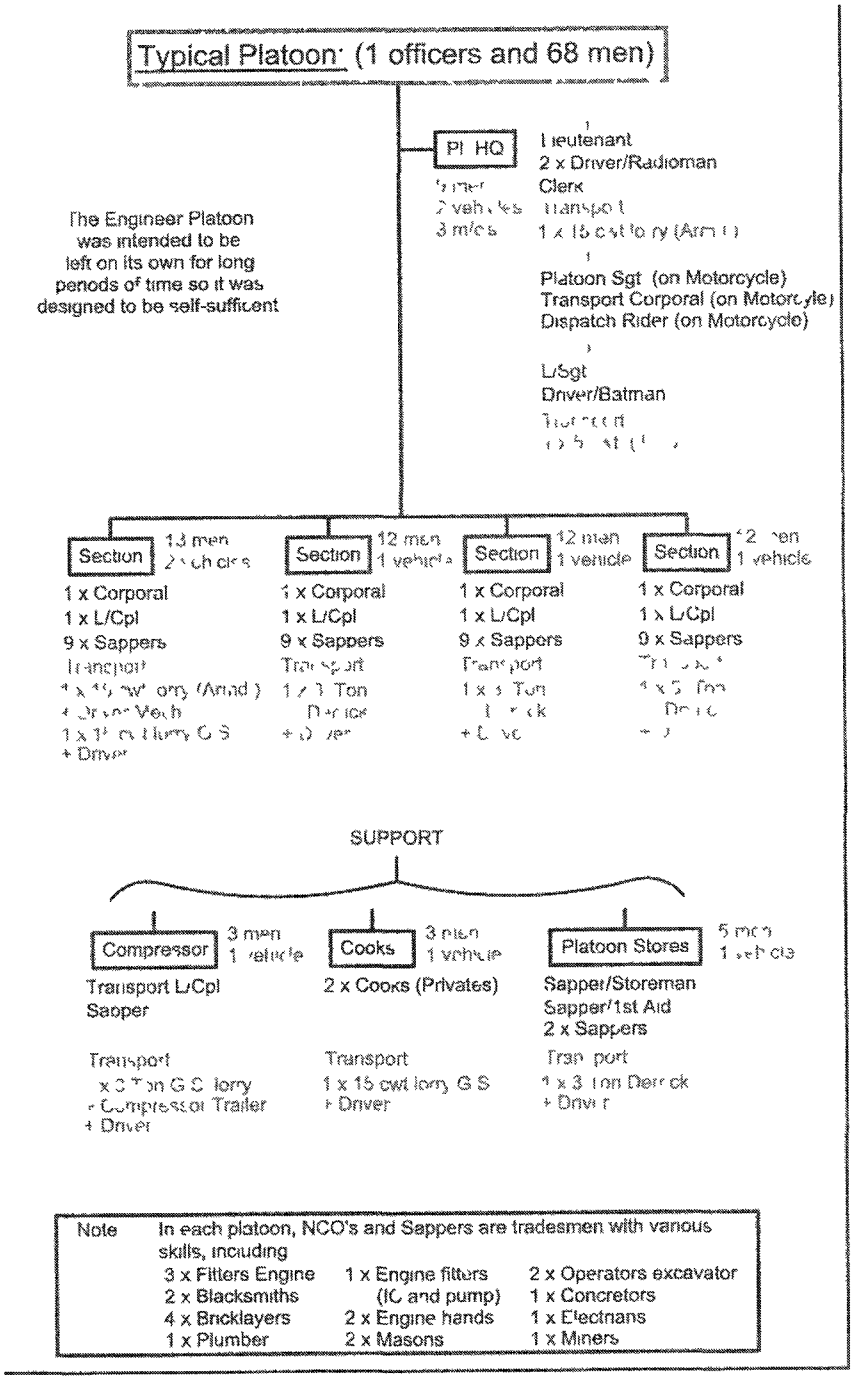


[97] Saunders, 53.

APPENDIX B
MAP 2



APPENDIX B
Typical 1944 Field Company, R.C.E.[98]



[98] Sliz, 33

APPENDIX C
6th Field Company First Wave Casualties on D-Day[99]

<table>
<tr><td colspan="2">A Company Royal Regina Rifles
Nan Green
LCI 1044 and 1048
Lt N. Mustard</td><td colspan="2">B Company Royal Winnipeg Rifles
Mike Red
LCI 1038 and 1043
Sgt F Emmerson</td></tr>
<tr><td>#9 Platoon
(Lt Grayson)</td><td>#7 Platoon
(Sgt Sneider)</td><td>#12 Platoon
(Lt Aitken)</td><td>#11 Platoon
(Lt Christmas)</td></tr>
<tr><td>L/Sgt WA Meek W
Spr G Velux
Spr W Curran
Spr N Sopher W
Spr JE Sawden K
Spr M Cleary</td><td>L/Cpl JT Ferguson K
Spr RC Jackson W
Spr W Arseneau
Spr SW Wilkins W
Spr NC Brown
Spr W Beehler W</td><td>L/Sgt WF Stewart K
Cpl A Duncan
Spr J Daussalt W
Spr RN Brewer K
Spr H Conger
Spr W Campbell</td><td>Cpl DH Wilkinson W
Spr RR Sparkes K
Spr L LaCroix K
Spr CR Brander
Spr M Wiseman
Spr RD Tarlington K</td></tr>
<tr><td>#8 Platoon
(Lt Hysler)</td><td colspan="2">B Company Royal Regina Rifles
Nan Green
LCI 1044 and 1048</td><td>#10 Platoon
(Lt Bealey)</td></tr>
<tr><td>L/Cpl GH Cooper K
Spr RC Spencer W
Spr B Kingsbury
Spr W Purcell
Spr B Franklin
Spr TG McDonald W</td><td>#12 Platoon
(Lt McNish)

L/Cpl NF Rundle W
Spr W Etchells
Spr M Nobel
Spr BH Trainer
Spr W Woods
Spr Mathews</td><td>#10 Platoon
(Lt Ziffle)

Cpl G Chapman
Spr A Bleoo K
Spr JL Poirer W
Spr OW Bezeau W
Spr TB McCarthy W
Spr BR McDonald W</td><td>L/Cpl Teskey
Spr AT Jackson K
Spr A Martin K
Spr F Zarembinski W
Spr MG Adams K
Spr AE Goodrum W</td></tr>
</table>

Notes -
K – Killed
W – Wounded
LCI – Landing Craft infantry

[99] Received from Lieutenant-Colonel Vince Larocque

Curriculum Vitae

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